NOVEMBER 1956 50¢

ANNUAL MEETING ISSUE

SOLDIER OF THE FUTURARMY

From Caissons in the mud to 'Copters in the Sky

Edgar N. Anderson enlisted in the U. S. Army in 1938 fresh out of Mountain View High School in Lawton, Okla. After serving in the ranks, he went overseas as an artillery officer with the 1st Infantry Division in the European Theater.

When helicopters entered the Army's plans as a valuable adjunct to field and front line operations, Lt. Anderson was one of the first graduates of a course which then consisted of only 25 hours.

He was on the scene in Japan and Korea as early as 1949 and flew actual combat missions in Bell Aircraft's H-13 in the initial stages of the use of the helicopter in theaters of war.

Now a major, Ed Anderson's flying career closely parallels the Army's development of the helicopter on its present broad scale. He is currently Tactics Division Commander at the Army Aviation Center, Fort Rucker, Ala.



Major Edgar N. Anderson "... up from the ranks"



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"...up from the ranks"



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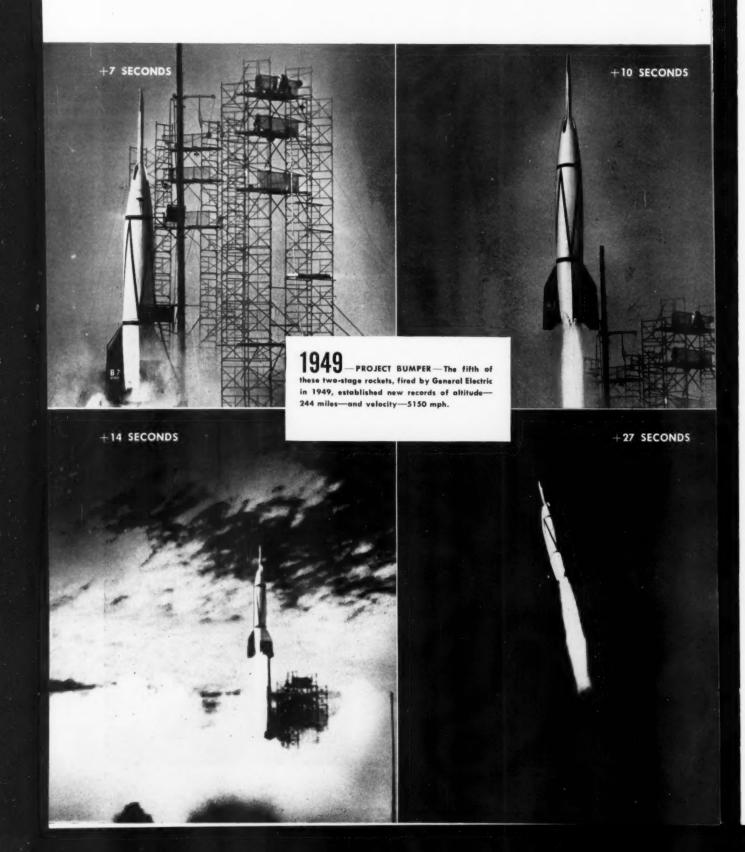
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ARMY is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army. ARMY strives to—

Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

Advance the status of the soldier's profes-

(Adopted by the Executive Council of the Association of the U. S. Army, 21 June 1954)

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The Month's Cover

The Futurarmy soldier will dominate the battlefield of the future, despite the presence of the wonderful and weird instruments and weapons Lieutenant Colonel Robert B. Ricc, Armor, pictures on this month's "wrap-around" cover. For more about the soldier of the Futurarmy see page 24 and for a glimpse of Colonel Rigg turn to page 37.

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THE MONTH'S MAIL

Proud to Be a Guardsman

 Your article on the National Guard had only one fault: it should have appeared years ago!

I'm one of the fanatics referred to, I guess. I command a rifle company of the 211th Infantry. I was a Reserve officer on active duty with the 28th and 34th Infantry regiments, and in combat with the 23rd. I graduated seventh in a class of 200 plus four other Guardsmen from the Associate Advanced Course at Benning. I had to, or I couldn't have faced my Adjutant General!

The secret of what makes the Guard tick is very simple. In an age when it is fast becoming a lost art, the Guard "soldiers." Commanders bear complete responsibility all the way down the line, and the company commander is king. Remember, the average company commander is also a post commander. He makes the decision on how funds are spent for maintenance of his armory. He plans Armed Forces Day ceremonies. Training is his responsibility, in fact as well as in theory. Promotions and demotions are also his responsibility, for headquarters may be a hundred miles away. He is the Old Man in the old style, and always in the back of his mind is the fact that in emergency the life or death of his community may depend on the readiness of his unit.

It's hard for some of our brethren on active duty to believe it, but Guard officers are given a job, the authority, and then turned loose. No harassment, no certificates to certify one has certified the certification. Should another mobilization come, the "Old Army" will come back to life. It's hibernating in the armories. Esprit is no great problem in units where men have served together for ten to twenty years; where their fathers and grandfathers served before them; where every man is a volunteer in a unit whose combat record is unequaled by any other components; where units train themselves with their own equipment at camp instead of merely being guests of regular committees and cadres.

I'll admit I'm proud to be a Guardsman, and I'm proud of Army magazine, to which all my officers subscribe.

Capt. Rorert de Marcellus Palm Beach, Fla.

Hometown Units

• Lieutenant Jacobs's most interesting articles will serve to point out the workings of the National Guard to a lot of people, even Guardsmen, who aren't quite sure where it stands. In the second article, however, I think he misses the point in his (or the Guard's) argument for service as an integral unit rather than the accepted theory of dispersion among other units.

I can think of two instances, one fairly well known, the other personal, that argue the point for dispersal. The five Sullivan brothers served in the same ship during World War II. Their ship went down, and probably no American mother gave so much to the war effort as did Mrs. Sullivan.

Notwithstanding the emphasis on troop dispersal in the age of nuclear warfare, when men are killed in the future it will be in groups. The group may be small, but what effect will it have if that group happens to be a Guard or Reserve outfit from the same locality?

SGT. BEN MOSKOWITZ

Norfolk 4, Va.

An Authoritative Appraisal

• In my opinion, Mr. Jacobs and the Editors of Army have presented a really outstanding piece of objective journalism in the articles on the National Guard in the August and September issue.

It is most heartening to find that rarity—a well-balanced analysis of the National Guard—in which the problems of the National Guard are recognized, and in which its accomplishments are appraised honestly and fairly and are balanced against its acknowledged shortcomings, and in which the reasons for the latter, and the sincere efforts toward surmounting them, are understood and clearly explained.

It is especially gratifying to note the perspective in which the report has played the part of the National Guard Association of the United States has played, and is playing, in the development of the National Guard.

The special report will, I hope, assist materially in developing, within the ranks of the other components especially, a greater knowledge and understanding of the National Guard, and in dispelling many of the highly distorted and inaccurate impressions of the National Guard which have persisted for years and which, unfortunately, have served only to impede its growth and development.

Maj. GEN. E. A. WALSH

President,

National Guard Association Washington 1, D. C.

The Word Gets Out

• Having been in all the Army's components (NG, NGUS, ERC, ORC, AUS, USA) except one, I feel I can hardly abstain from making one comment on Bruce Jacobs's second instalment on the National Guard [September].

He states that the Guard is politically potent—and it is. He further states that "For the Army to have serious en masse reservations about Guardsmen and their ability to command is to reflect doubt upon the Army itself. Would-be Guard officers must appear before Regular Army boards."

One could hardly take exception to the en masse portion of the statement. However, it is difficult to imagine that Lieutenant Jacobs is so naïve as to be unaware that when a would-be officer (or an officer who must show cause for retention) appears before a board and this officer has political "connections," either at home or in Washington, or both, a decision against him could spell the doom of a career of an active-duty officer who is a member of the board.

Fewer and fewer careers are ruined in this manner because more and more unit advisors are given and getting the word. The most apparent damage is the commissioning and retention of a significant number (any amount would be significant, actually) of really dangerous dunderheads.

Captain Dan H. Dietrich, Jr. Killeen, Texas

Give the Training Centers the Best

• I certainly agree with CWO Snyder ["Sell the Army from Inside," September]. It has long been my opinion that the attitudes held by the American public toward their Army are gained from inside the Army through the youths who are drafted or who volunteer. A young man considering a service career will believe his former school chum who is in the Army, no matter how greatly his information differs from that put out by the recruiting officer. Likewise, parents and relatives believe what their boys write and what they tell, contrary to anything they read or hear through public media.

The best way to get a more favorable attitude on the part of the general public is to make good impressions on the young men first coming into the Army. If they can truthfully write home that they had joined an efficient, fair, well-disciplined, tough unit, the attitude of the public

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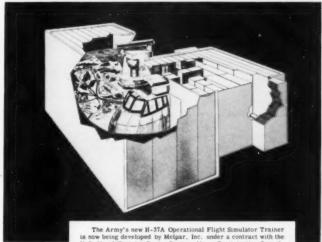
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would improve immeasurably. This is important, because with a good supporting favorable public attitude we might end the draft and maybe even get enlistments for five or six years. Think of the lowered costs, and the efficiency that would result!

It is so important that we should take some definite steps to make favorable impressions on recruits. The best thing to do, in my opinion, is to assign our very best officers and enlisted men to training centers, and keep them there for a full tour. A good experienced trainingcompany commander can make a big difference. I am not familiar with assignment policies for officers to training companies, but I know that a while back second lieutenants with little experience were commanding training companies. They were two-year men just like the draftees, so you can imagine what kind of attitudes the draftees acquired. I suggest that the Army assign only top captains to traning-company jobs. This assignment should take precedence over every other assignment-even the plush job I've got right now. Correspondingly good NCOs and other officers should also be assigned.

I really feel that this one step could pay the Army bigger dividends through improved attitudes on the part of the American people than any other single thing the Army can do to improve itself.

CAPT. Amos L. Wright

358-C Gulick Drive Fort Monroe, Va.

ACMS Overburdened by Staffs

• I received the inclosed letter following the publication of my article ["Command Development Through Decentralization"] in the September issue. Because the comments, in my opinion, were well taken, I requested Colonel Stubbs's permission to release it for publication.

I am happy to say that my somewhat unconventional views have stimulated considerable interest.

COL. FRANK KOWALSKI, JR. Commandant Command Management School Fort Belvoir, Va.

The letter referred to follows:

• Having been closely associated with the implementation of the Army Command Management System [ACMS] in this army area, I studied your proposals with great interest.

Most officers will agree, particularly the harassed commander, that decentralization is desirable, and that the conditions you propose are good. Unfortunately, ACMS does not foster decentralization as you and many of us hoped it would, but is having the opposite effect. This assertion may appear ridiculous, but the fact is that those who are bent on managing each activity at installation



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level (Technical Services mainly) have found in ACMS an almost perfect vehicle with which to accomplish their

purpose.

I believe that we fail to decentralize in the management field, as is customary in military operations, because our staffs are much too large. Few can deny that from D/A on down through installation headquarters our staffs are top-heavy, particularly in civilian staff positions. The simple fact is that we cannot have great numbers of so-called managers and analysts at the top level and expect them to sit with folded arms. They must do something; and that something is to require detailed reports and attempt to control operations in the minutest detail.

It will be privately admitted that monthly detailed performance data required of subordinate commands is not used as a basis for decision or action at

army level.

I am convinced that to effectively decentralize, the first practical step is to reduce the size of our staffs, with particular emphasis on civilian positions in the upper grades. Let me add that I am not referring to the civilian force essential to the Army, but there are countless staff positions to which little or no responsibility can be attached, and whose functions are not essential. Over a period of time a hybrid echelon of staff review has evolved which, as I see it, contributes nothing to the accomplishment of a command's mission, and thwarts all efforts to decentralize.

The remedy is to eliminate the position, for if the non-essential function only is eliminated, the incumbent will produce another scheme to replace it. And the reduction must begin in the Pentagon, for the lower-echelon commander is reluctant to decrease his staff because it may impair his ability to fulfill D/A requirements.

There are other practical and shortrange objectives which could speed decentralized control, of which you are aware. My main purpose in writing is to point up an assumption often made concerning ACMS, which I believe to be misleading.

ACMS is here to stay, and is fundamentally sound, but we must be on guard. The truth is that, as matters stand, and if current trends hold, commanders will be burdened with mountains of detail and stripped by the most efficient second-guessing system yet devised.

We are getting requests for increases in the work force to support ACMS. I add this as a possible field for inquiry through those attending the Management course.

My thanks to you for your stimulating discussion in ARMY. Let's hope it hits pay dirt.

Lt. Col. Hugh P. Stubbs, Jr. Atlanta 11, Ga.

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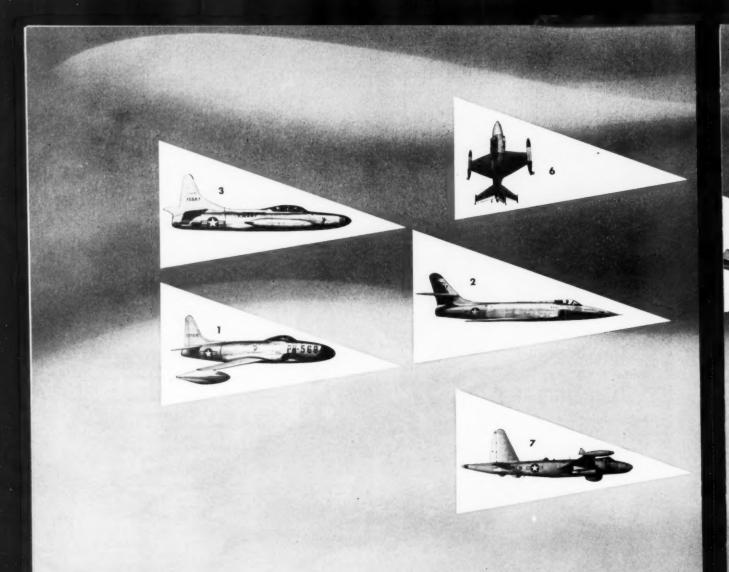


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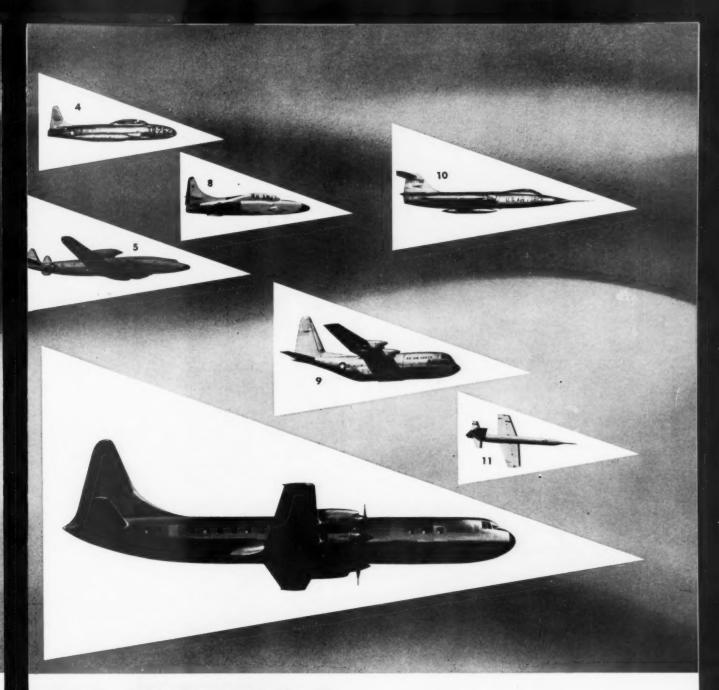
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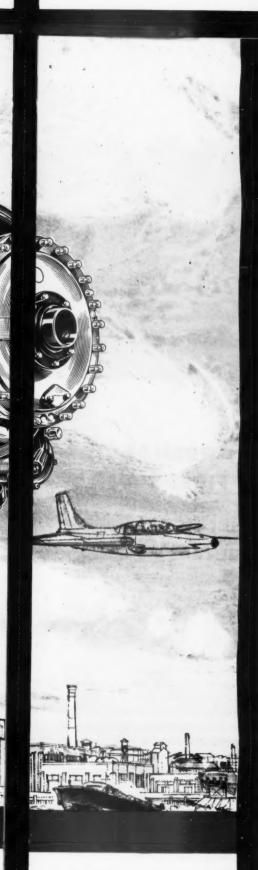
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The T53 has previous

The T53 has previously been chosen to power the XH-40, a new Army utility helicopter being developed by Bell Helicopter Division in Ft. Worth, Texas. The helicopter to be the first gas-turbine-powered services.

Note these facts about the T53:

- outstanding performance—825 hp. in so little space (length: 47.6 in.; diameter: 23 in.). Only 460 lbs.
 Uses a variety of fuels including automotive and aviation types, gasoline and JP-4 with a low fuel consumption of 0.71 lbs. per hp. per hr.
- minimum of critical materials—assures availability of the engine even under emergency conditions!
- rugged design features—guarantee safe operation under the most grueling pressures, guarantee a long life for the engine.
- unprecedented ease of maintenance—entire power turbine and combustor may be removed as an assembly for inspection and maintenance in the field.
- versatility—available with front-end take-off or rear-end take-off or simultaneous power extraction at both ends.

The turbine age is here! Developed by the men who built the first mass-produced jet engine to fly—built by the manufacturer whose reciprocating engines drive more different types of fixed and rotary wing aircraft than any others in the world—Lycoming's T53 may solve your future power problems, now!

Phone, wire or write for turbine booklet to Avco Lycoming, Stratford, Conn.

defense and industrial products

TODAY'S MILITARY SERVICES, WITH THEIR TREMENDOUS TECHNOLOGICAL AD-VANCES MADE POSSIBLE THROUGH SCIENCE, OFFER A VITAL REWARDING CAREER

THE ARMY'S MONTH

The Challenge Will Be Met

THE appearance of the explicit and carefully written explanation of the facts about the present imbalance in the grade and branch structure of the active officer corps in Officers' Call (Army Pamphlet 355-24) shows the degree of concern this problem is causing the Department of the Army. The causes of the imbalance are threefold: (1) Force reductions since the end of the Korean war have been mostly voluntary and without reference to specific Army requirements; (2) the Armywide promotion system does not permit quick adjustment of the grade structure of any specific branch; and (3) the impact of the technological revolution in weapons and machines on military requirements.

These are the significantly overstrength and understrength branches and grades as listed in the D/A pamphlet:

SIGNIFICANT	OVERSTRENGTH
Branch	Grade
C	0 :

Diane	ē						Critic
Infantry		*				*	Captain

4 3		0	12
Ad	untant	General	S

ujutani		C	n	11	IC	L	11	2			
Corps	*	*	×		×				*	٠	Colonel Lt. Colone Captain

Military Police Corps Captain

Quartermaster Corps . Colonel Lt. Colonel Major

Transportation Corps . Lt. Colonel Major

SIGNIFICANT UNDERSTRENGTH

Artillery					0	Lt. Colone
						Major
						Captain

Armor Captain

Signal Corps Colonel Lt. Colonel Captain

Corps of Engineers . . Lt. Colonel Captain It can be hoped that the first cause will disappear by a reasonable stabilization of the Army's strength.

As to the second cause, occasional imbalances in a specific branch, even if prolonged, are more desirable than the iniquities of branch promotion. The feud'n, fight'n and fuss'n that went on among the branches in the days of branch promotion did no one any good and the whole Army suffered.

The third cause of imbalance—changing personnel requirements dictated by the impact of the technological revolution—is just beginning to be felt and it is probable that its effect today is less than it will be tomorrow. This is more than a matter of concern over imbalance of the grade and branch structure; it impinges directly on the future capability of the Army to perform its mission.

Most soldiers can and do face the facts of vast changes in weapons and machines objectively and impersonally. And so too with the impact of these on tactics and techniques. Subjectivity and a degree of personal involvement emerges on the question of organizational changes, especially in reference to the old and honored regiments.

The real test of the individual's capacity to meet the challenges of the future comes when he faces the fact that he may be the one who should alter the anticipated course of his career. While sound and wise personnel planning can provide an orderly transition, successful adjustment will largely depend upon the officer himself.

So, looking beyond the present problem, it seems clear that today's officer must be prepared to take on a new and strange job and one that he may not like as well as the one he thought he would have. But this has always been

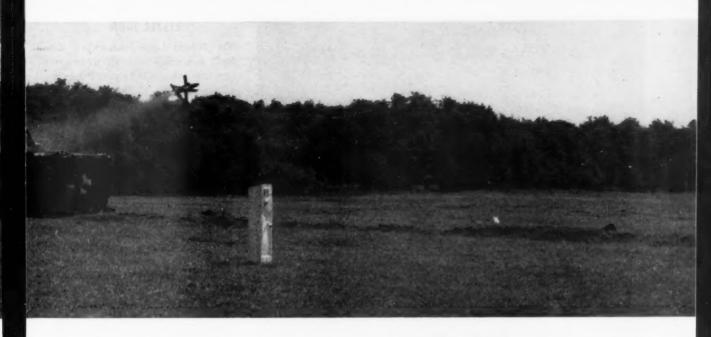


ARSENAL OF FIREPOWER

Army Ordnance Displays Impressive New Weapons

true and there has never been a lack of farsighted officers who pushed aside personal inclinations and a strong feeling for tradition, to take up a new mission. It does not seem unfair to compare the emerging situation with that faced by cavalrymen when the motor vehicle was militarized. Forty years of lighthearted talk about how the cavalryman's love for horseflesh caused him to resist change, obscures the fact that many cavalrymen did make the adjustment and were prepared when the challenge came. Chaffee, Patton, Harmon and Walker are a few names that come to mind.

Would anyone say that today's Army isn't made of the same kind of stuff?



ALL-PURPOSE MACHINE GUN

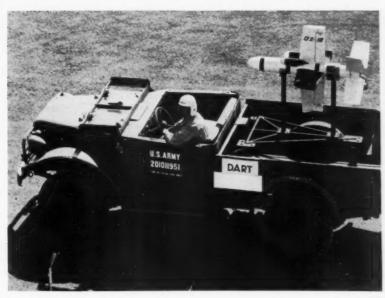


This is the Army's new caliber 7.62mm machine gun, T161E3, designed to replace three present caliber .30 machine guns. It can be fired from shoulder, hip, bipod, or new aluminum tripod. Weight: 23 pounds, including shoulder stock and bipod. Overall length: 43 inches. Ammunition: NATO 7.62mm (formerly U.S. caliber .30, T65). Rate of fire: 600 rpm. Action: rotary locking bolt, similar to Lewis MG. Fed by disintegrating metallic-link belt and gas-operated, it has an air-cooled, quick-change barrel with integral gas system.

ANTITANK MISSILE

Some infantrymen have long suggested that a rocket weapon with more range and better aiming or guidance than the Bazooka might drive the tank from the battlefield. The device shown above and at right below is the Dart, a simple but effective guided missile that may be the answer. Designers say they built in a high probability that a single hit would destroy a heavily armored tank. Spectators who witnessed a demonstration firing, saw the round make an undulating start, straighten out and then drive on the bull's-eye of a moving target at what was described as "extreme range." The Dart in flight is maneuverable enough to make it relatively safe from rifle, machine-gun and antiaircraft fire. It is approximately five feet long, with fins crossing its waistline. The rocket motor burns a smokeless propellant.

More new weapons pictured on next page



of approximately 12 feet. Little John is being produced by Redstone Arsenal. It is popularly believed that the Little John will replace the Honest John in combat units requiring a high degree

of strategic mobility.

LITTLE JOHN

NEW FIELD GUN



Newest and one of the most versatile in field artillery pieces is the 175mm Gun, T45, which has battle capabilities superior in some respects to the combined features of the 155mm gun, the 8-inch howitzer, and the 8-inch gun. It can fire in a complete circle and occupy its firing position quickly and with no need to dig recoil and spade pits. It uses hydraulic-electric power to reduce the work of the crew and speed up firing. New sights which read directly in numbers instead of micrometer scales add to speed and accuracy of fire control. The tube travels in recoil, and goes into battery of its own inertia when uncoupled from the mover. It is popularly supposed to be capable of firing an atomic warhead.



General Officer Shifts

Lt. Gen. Arthur G. Trudeau to I Corps. . . Maj. Gen. John W. Harmony to Officer Augmentation Det, Washington, D. C. . . . Maj. Gen. Hugh P. Harris to 11th Abn Div. . . . Maj. Gen. Emerson C. Itschner to Chief of Engineers . . . Maj. Gen. Edward J. McGaw to 6th AAA Regional Command . . . Maj. Gen. Paul I. Robinson to TASGO . . . Maj. Gen. Richard W. Stephens to Chief of Military History . . . Maj. Gen. John H. Stokes, Jr., to Hq Sixth Army . . . Maj. Gen. Russell L. Vittrup to AFFE/8A. Brig. Gen. Theodore F. Bogart to ODC-SOPS . . . Brig. Gen. John W. Bowen to

82nd Abn Div . . . Brig. Gen. George T. Duncan to Berlin Command . . . Brig. Gen. Albert G. Franklin, Jr., to 1st AAA Regional Command . . . Brig. Gen. Frederick W. Gibb to Army Combat Dev Test & Exp Center (CONARC) . . . Brig. Gen. Robert H. Wienecke to OACSI . . . Brig. Gen. James K. Woolnough to ODCSOPS.

Retirements

Lt. Gen. Samuel D. Sturgis, Jr. . . . Maj. Gen. George B. Peploe . . . Maj. Gen. Numa A. Watson . . . Brig. Gen. William L. Wilson.



TANK LIFTER

At a demonstration sponsored by the CONARC board at Fort Knox, Ky., a LeTourneau lifter handles a tank as handily as you do a forkful of spinach.



IT'S A PARATROOPER'S BEST FRIEND Makes possible easier and safer drops for 64 battle-ready paratroops with its reduced drop speed and unique wind-stream deflector.

Today the 18th Air Force of the Tactical Air Command must be ready to airlift anything or anybody at any time anywhere in the world. Such versatility is a specialty of the C-130 Hercules, America's first propjet transport for global military air power and peacetime airlift. Now being built in quantity at Air Force Plant No. 6, Marietta, Ga.

LOOK TO LOCKHEED FOR LEADERSHIP

Lockheed Aircraft Corporation, Georgia Division, Marietta, Georgia

Delegates to the 2nd Annual Meeting, Association of the U.S. Army: See the dramatic Lockheed exhibit—Booths 71-72-73, Sheraton Park Hotel, Washington, D.C., October 25, 26, 27.

Irons in the Fire

Close Support SSM

Described as "deadly accurate" and highly mobile, Lacrosse, the surface-to-surface guided missile developed for close support of battle units, consists of the missile itself, a launcher mounted on a truck, and a guidance station. It was developed for Army Ordnance by Cornell University's Cornell Aeronautical Laboratory, Inc., and is produced by Glenn L. Martin.

Army-Launched 'Satellite'?

The very first news page of the very first issue of "Missiles and Rockets," a new magazine devoted to astronautics, reports that the Army is capable of sending up its own Earth-circling satellite before the much-publicised Vanguard. "No one disputes that the Army possesses the raw capability of boosting a small rocket up to orbital velocity," the magazine asserts. It said the Army could do it by using "a Redstone rocket as the first stage, a Sergeant or some other ballistic rocket as a second stage and a small solid-propellant

rocket as the third stage which would become an orbiter." When the magazine asked the Army if it planned to put up a satellite, "an Army spokesman [replied] 'no comment'—but he said it with a smile." "It should be observed, "the magazine said, that "a satellite would be merely incidental to the Army's basic desire to learn more about the staging techniques of tomorrow's ballistic missiles."

Lining for Rocket Nozzles

Battelle Memorial Institute of Columbus, Ohio, is endeavoring to find or develop for Army Ordnance a ceramic material for rocket nozzles that can withstand severe erosion conditions created by solid-propellant, booster-fired rocket.

Long-Lived Transistors

Tests by General Electric engineers show that transistors have a much longer life than vacuum tubes. Some are operating at full power after 18,000 working hours, which is equal to eight hours a day for six years. Transitors are also rug-

ged. Large numbers were fired from a mortar and between 60 and 75 per cent were capable of operating at full power. Minor modifications in manufacture are expected to raise that percentage significantly.

Endurance Flight Record



An Army H-13H Bell helicopter set a new endurance record of 57 hours and 50 minutes in the air during the National Aircraft Show at Oklahoma City. Six Army pilots took turns flying the 'copter, which never touched the ground during the period. Pilot changes and refueling operations were carried on while the helicopter hovered just above the ground. It had to come down when the show was over but could have stayed aloft another 50 hours in the opinion of the crews.

Ubiquitous Aviation

Formation by the Chief Signal Officer's Army Aviation Flight Information Division (AAFID) of a global flight information service with field detachments to be established at Heidelberg, Germany; Tokyo, Japan; Fort Amador, C. Z.; and Fort Richardson, Alaska, shows the ubiquity of Army Aviation and its growing need for flight information not available to it from other agencies of the government.

Portable TV Camera

A small and light TV camera that is highly sensitive under low light conditions has been developed by RCA. Using transistors throughout, the camera weighs only 31 pounds, operates on less power than is burned by a 50-watt light bulb, and can be carried in a case smaller than an overnight bag. It is expected to have many military uses, both in the air and on the ground.

Army Serves The Dew Line



Army Transportation Corps troops delivered and unloaded 25,000 tons of general cargo and eight million gallons of bulk petroleum for Distant Early Warning Radar Stations along the top of North America during the past summer. More than 1,500 troops were engaged in the operation which had to move fast to beat the arrival of Arctic ice.

For the Marines, a fast, versatile liaison plane

The 190 m.p.h. Cessna OE-2 is now serving with the Marine Air "Arm." Designed to meet highly specialized Marine requirements, the OE-2 brings greater versatility to the Corps' air operations.

A more powerful version of Cessna's famed L-19, the OE-2 is the first liaison airplane with built-in target-marking capabilities. It also is used as an artillery spotter, to lay communications wire and to drop supplies to troop positions.

The OE-2's 220 m.p.h. dive-speed capability combines with its self-sealing fuel tanks, flak curtain and armored seats to give the Marine pilot maximum protection during combat operations, get him in and out of targets, fast!

The OE-2 meets a specific need. Cessna considers it a privilege to cooperate with the military in planning for today's air age. CESSNA AIRCRAFT COMPANY, Wichita, Kansas.



For the Marines, a fast flying "work horse"





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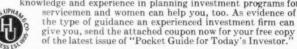
MILITARY FORCES

... it fits the pocket ... it fits the purse



These are busy days for Army, Navy, Air Force and Marine Corps men and women. So busy that you may forget to plan ahead for retirement. But now is the time to prepare for the future—now when saving a few dollars each week for periodic investment hurts least...helps most.

The Armed Forces Department of Harris, Upham & Co. provides specialized investment advice for military personnel serving in the United States or overseas. Harris, Upham's knowledge and experience in planning investment programs for



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Implications of the Missile Era

War power really is means times mobility . . . if you can't deliver the stuff where you want it, you lose

Partial transcript of a radio broadcast by Lt. Gen. James M. Gavin on "Survival in the Air Age" over the Mutual Broadcasting System.

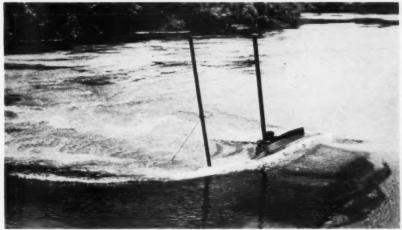
There are a number of implications of the missile era, and one certainly is this: that as missiles become more effective, flying combat aircraft over land areas defended by missiles will be a very unhealthy and perhaps unprofitable business. This is not to say that there is not a tremendous role for the man who flies the airplane today; it is greater than ever. Missiles must be put where we need them by aircraft, they must be re-supplied there, and warheads for them must be brought there. Our forces must be deployed to the area of decision around the globe, and this must be done by air, not by ship.

Then there is a need for great dispersion. This implies that you must have mobility to compensate and get along. And this means global mobility as well as ordinary theater of combat mobility, which implies a great need for large transport aircraft. And furthermore, to put it in a form of mathematical expression, our war power really is the means we have times its mobility. You can have everything in the world you might need to win a war but if you can't get it there, you get second prize, which means you have lost. So we need great air mobility. Furthermore, air mobility would give us opportunity to develop an electronic logistics system, develop highly refined global systems of supply and movement and learn a great deal

This is the heart and soul, I think, of success in the atomic era: a very fine and very able force to move by air rapidly to the area of decision, and make evident our ability to do this sort of thing. This we must have and this we must do.







Wherever the Army wants to go!

THE JOB of GMC Truck & Coach Division is transportation—and the Army has tested our competence in many ways.

The mountain-climbing 6x6 GMC truck answered one challenge.

The submersible "Snorkel" GMC – whose driver wears a diving mask – answered another.

And more recently, the 8-ton GMC "Drake"—all of whose 8 retractable wheels drive it on land, and whose twin screws give it respectable seagoing speeds—coped with still another demand.

You'll find it interesting to see these unique vehicles pictured and described, as they are at Booth 62, Exhibition Floor, at the Park Sheraton. Drop in on us, won't you?

GMC TRUCK & COACH-A General Motors Division

Wearing a scientifically designed helmer, plastic armot tunic, and ultra-light equipment this Futurarmy soldier will move and fight with areated asse and efficiency than any other soldier in modern history. The helmet visor will not only offer added protection but will provide the soldier with night vision and telescopic sight. Manning a variety of missiles and other weapons this Futurarmy soldier of he 1970s will be the best protected individual since knights wore steel armor.

SOLDIER OF THE FUTURARMY

Man will dominate the battlefield of the future and victory
will depend upon bold and resourceful
leaders and the disciplined skill of
fighting men who are trained in the handling of
complex weapons and equipment

LIEUTENANT COLONEL ROBERT B. RIGG

ILLUSTRATED BY THE AUTHOR

ANY war fought after 1974 will have some strange proportions. For example, enemy missile bases may be seized by men who will fire the captured missiles at the enemy's own military forces, other missile-launching sites, or other targets.

The pushbutton soldier will have worries. He will live and operate deep underground so as to be relatively safe from the blasts of opposing missiles. But this soldier-operator of long-range, even intercontinental, missiles will be living in a potential tomb that may be sealed by the enemy. And herein lies the pushbutton soldier's basic concern: whether other men will be possessed of better means of fighting man to man.

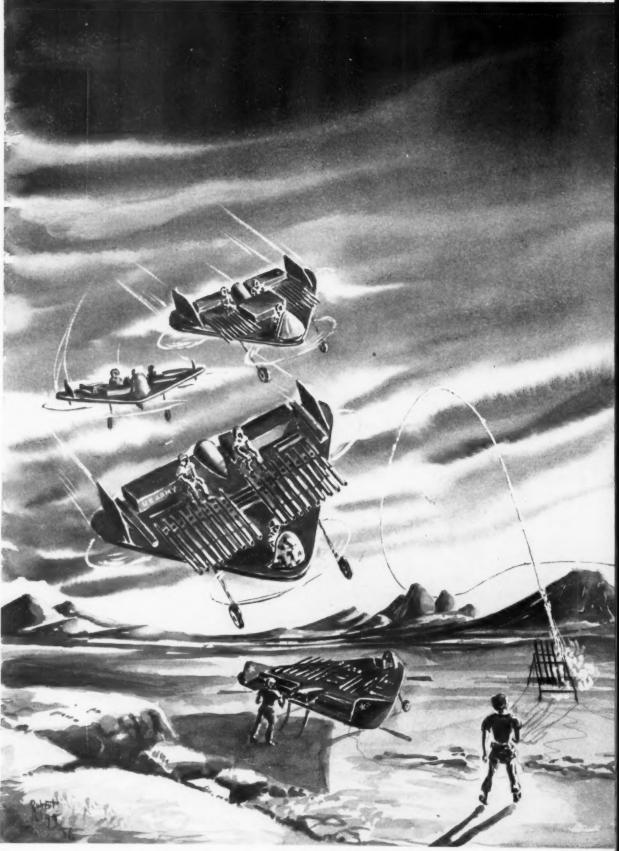
For every soldier who can press a pushbutton there will be several thousand enemy soldiers determined to liquidate him and his machine. These men will know no boundaries or barriers. Visored and big-helmeted, these future men of the electronic-missile era will look not quite like "men from Mars," but not like today's heavily loaded, foot-tired infantryman we know so well. They will be the land-spacemen—soldiers of the Futurarmy. And with them will come a new form of warfare—three-dimensional.

Because the Futurarmy soldier will be able to seize, neutralize, or exploit enemy missile bases in war, there could begin the "seizure campaigns"—the conflicts of men out to capture the nuclear components of an enemy so as to prevent the outbreak or expansion of the war into total nuclear proportions. Even within a conflict where only small atomic weapons are employed, there could be a struggle—entire campaigns—waged for the single purpose of seizing the stockpiles of large-type nuclear weapons. But three-dimensional warfare has many other features as unique and striking as the soldiers who will fight it.

What will this Futurarmy soldier of the 1970s look like? How will he fight when mechanical spies and seeing-eye drones scout for him? What will make him the most elusive target in history—and the best protected? Here is the future man who will talk into his helmet radio and see in the dark to become a relative superman in combat.

The "Superman" Equipment of the Futurarmy Soldier

Anything but Sad Sack in appearance, this air-age trooper will look as if meant for war. His helmet, unlike the crude pots of the past, will be a scientific masterpiece laden with miniature electronic devices combining communications, comfort and protection in a degree unanticipated today. Other equipment and



clothing will be so compact and light that this future soldier will be much more efficient than today's. He will have greater chances of survival on the battlefield than any soldier up to this date. Furthermore, this American soldier of the 1970s will be a formidable fighter because he will have full confidence in his plastic body armor and apply greater combat skill by virtue of new weapons, modernized communications, and ultra-miniaturized equipment.

The primary magic of the Futurarmy soldier's actions will lie in his basic garment—a very light plastic tunic. Bulletproof and shell-fragment resistant, this body armor will be expensive—commercially, that is. One suit may cost as much as \$700. This will make it the most costly

uniform since knights wore armor. Yet it will be a cheap uniform because its cost will be negligible compared with even today's costs for men in uniform. To train today's soldier sufficiently to qualify him to join a unit for more training, costs the Army \$3,200. When an American soldier is killed it costs the Government \$21,300. Far greater than the cold dollar cost of a casualty, is life itself—and this the U. S. Army seeks to preserve even within the grim framework of combat. Militarily there is the fact that when one man is lost the burden is greater on the remaining men. As casualties go up, the chances for survival for the remainder of the men go down.

One small item—not a weapon—will make this Futurarmy soldier act with unheard-of precision and aggression. He will gain independence and action from an ultra-small radio transmitter and receiver. This subminiature transceiver, set in the laminated sections of the helmet, will place the individual soldier in communication with all other members of his fighting team. These compact and miniature radios will provide a

new dimension to combat, binding men together—men in the air and on the ground —men who cannot see one another but men who will thus act together in combat concert. The Army is currently developing this concept of communications, and it has its first helmet radio in operation.

The future soldier's helmet will be visored. It will look like the sallet headgear of the ancient knight. This visor will have unique functions in addition to its face protection. For example, there will be knobs on the visor with which to rotate the various lens goggles. There will be a blackout lens to shield the eyes against the fire ball of a nuclear blast. The soldier will be able to switch on dust goggles, but more important, he can change darkness into day by

one flick of the wrist on the infrared dial and switch.

As darkness falls the Futurarmy soldier will emerge into the night with seeing eyes because this scientific helmet will place infrared lenses before his eyes. This will be the death knell for Communist guerrillas in the jungle. But elsewhere on land where men fight amid missiles in more formal combat, divisions of seeing American men can arise to advance and converge on enemy soldiers blinded by darkness. Penetrating darkness¹ in such a fashion will be tantamount to making the soldier a relative superman in combat. Only the nation maintaining technological superiority will attain this military advantage.

darkness will be a pocket radar set to warn the individual of danger. A pocket radar set sounds remote. Actually, it is not. A new electronic device has been developed by the Army Signal Corps which promises pocket radar. This device is the world's smallest self-contained magnetron tube. The size of a golf ball, this device is presently visualized as the basis for the Futurarmy soldier's pocket-radar set which will warn him of the approach of vehicles or infiltrating enemy troops.

Binoculars, so important in combat, will be replaced

These versatile Flying Platforms of the era of Futurarmy here land a guided-missile battery which has already opened fire in support of 3-Dimensional Army units. These missiles of the 1970s will be lighter and more miniature than present ones. Launched from naval aircraft carrier or air transports, these aerial jeeps will carry land-spacemen, missiles, and a large variety of other weapons to the enemy's doorstep. These flying platforms will also carry supplies from helicopter (Hercules)-landed breakdown points where the detachable crates are deposited.

^{&#}x27;There is already progress in this direction. Helmet-mounted infrared binoculars are now under Army development. These binoculars, when used with a light source equipped with an infrared filter, may be used for night driving, vehicle maintenance, construction, and many other activities. The Army's new sniperscope designed to replace the one now in use will be considerably reduced in size and weight. It will also have greater range and reliability. A new image metascope, easily held in one hand, will allow the soldier to locate sources of infrared radiation. When used with an infrared filtered flashlight it will allow the soldier to see in the dark.

by special distant-lenses in the visor. Even ordinary eyeglasses can be included in the visor goggles.

The new scientific helmet will combine steel and plastic armor2 to give the head near-perfect protection. In the last two wars we have fought, forty to forty-five per cent of the deaths in action have been caused by head wounds. Science has a primary target in the head of man. We may expect that the future helmet will not just be gadget-laden; it will be scientifically designed to protect the head to a degree even the ancient knights never knew. Larger and thicker, it will be as light as today's helmet. The total magic of this futuristic helmet will be such that the individual will be physically and mentally reinforced to a degree of new aggressiveness in daylight and darkness.

Tailored super-comfort and protection for the Futurarmy soldier

Today's soldier will be happy to hear that tomorrow's man at arms will wear a combat uniform of superman comfort. In fact, he will be astounded at its lightness. He will be even more surprised over its many contents. There will be tiny capsules of survival rations tucked in the heels of the zippered plastic boots. Survival rations-small, hard flakes the size of a pennywill also be wedged into the outside edges of the plastic boot soles-soles that will wear beyond present-day comprehension.

Pockets on the outside of each boot will carry a compact self-medical-aid kit for emergency use. The de-

mands of future war will be such that soldiers will be equipped and trained to administer limited medical assistance to one another in emergencies. Even today's soldier carries an atropine syrette in his gas mask with which to give himself a needle shot in the hip in case he is exposed to nerve gas. This is the first step toward self medical aid.

Every inch of space in the future soldier's gear and uniform will be scientifically measured and utilized to the last square fraction of an inch. Even

War in its purest form—attack on enemy military forces only-is waged here by Futurarmy 3-Dimensional forces composed of intermediate range missiles, flying tanks, Centaur air-artillery, and flying platforms transporting land-spacemen who man a variety of weapons from short-range missiles to machine guns and rockets. An enemy convoy and command post burns after an attack as missiles interdict enemy reinforcements moving up to strike the 3-D forces now en route to a new target in a sea-launched blitz designed to destroy all enemy forces in a given area.

the stitched rows on back of the gloves will contain something of use: miniature capsules of vitamin pills!

"Glass grenades" will ornament the soldier's handsome belt. These miniaturized grenades will derive their deadly quality from their frangible plastic shells containing shreds of glass along with tiny missileshaped steel needles. This type of grenade is designed to produce an unusual degree of shock and multiple wounds in the victim by virtue of the many flying fragments. On the belt will also hang the traditional canteen which will not look much different from today's canteen. But it will be made of lighter material.

OR defensive protection against the blast and fragmentation of missiles and the larger weapons of destruction the Futurarmy soldier will still have to dig in. And he will have to do this much faster than in the past. For this reason he will be equipped with an automatic foxhole digger3-a miniature bazooka that propels

an explosive charge into the ground. This will result in a hole that can be quickly improved by a light hand spade. This spade will be a detachable shell that will fit

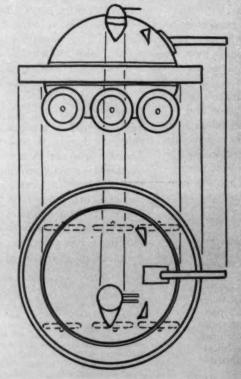
weight gas mask that will have no evepieces because the mask will be made of transparent plastic. Breathing will be made much easier through the use of an improved pad-type gas-aerosol filter.4

rain-the Futurarmy soldier will carry a transparent plastic cloak that will fold into a cigar-sized capsule when not in use. But the true magic of this rain cape will not be

around the canteen. On the belt will hang a light-Against the perennial enemy-

> 3Army Engineers have developed and tested a prototype foxhole digger. By 1957 the Army hopes to have an improved experimental model of this device weighing not more than 3.5 pounds. A current investigation is being made of two additional approaches to this problem, both employing shaped charges.

This type of filter, featured on today's new field protective mask, eliminates the bulk and bothersome canister; it also permits the soldier to wear it for longer periods than were common to the canister.



The Army is already on the way toward combining other substances with steel for head protection. A laminated nylon helmet liner has been tested to replace the present one. It will provide a 60 per cent increase in ballistic protection at an expense of only two ounces additional weight over the present type liner.



in its compact size. The real magic will be that the cape will be impregnated and have the special quality of initially protecting the individual against radioactive fallout.

The problem of soldier warmth can always be solved if the weight and bulk of blankets and overcoats are accepted. The future soldier's essential warmth will come from a garment that combines the functions of both blanket and overcoat. This will be a light cloak. The miracle of this cloak will be that it can be folded into a package the size of a book and be carried by the rear portion of the soldier's belt. Made from several layers of ultra-thin synthetic fabrics of new quality, the cloak will be cross-stitched in strange fashion but not quite like Chinese padded clothing. This cloak will be designed for durability as well as air-layered warmth of multiple form. This cloak can be inflated like an air mattress by the soldier, and thus provide thin layers of air for protection against the cold.

Another model of this cloak will be electrically heated for use in colder climates. This cape can be plugged into the circuit of any vehicle or into soldier-carried batteries of ultra-miniature size. Carried on the belt or in a pocket, these long-life batteries will supply enough current to heat the hair-line wires imbedded in the cloak. This cloak will not produce "bedroom warmth," but it will create a degree of comfort to help the soldier exist through subzero temperatures and keep him from becoming a victim of sheer cold discomfort and frostbite.

PEAL comfort is uncommon to combat. Comfort is relative in war. The dry rock is comfortable compared with wet mud. The soldier-even the future one -cannot deny that he must live and act within the brutal elements of the earth's atmosphere. The soldier must live with exposure. The moment that the soldier is insulated in a complete cocoon of comfort, he will simply be a regimented creature in uniform. Therefore, there are practical limits to which we can safely insulate the soldier to his ordeal and mission of fighting. The best form of protection that can be given the fighting man is adequate protection against enemy weapons. This the Futurarmy soldier will have in his tunic armor. But unlike the clumsy and cumbersome shielded knight of old, the new soldier's armor will be ultralight as a result of the new fabrics and plastics yet to come.

For too many generations our troops have been cluttered with cumbersome gear and grossly overloaded. In fact, the individual soldier still labors under a total load that has hardly varied in weight and bulk since Napoleon's legions fought at Waterloo. In World War II our own troops were known to abandon individual equipment as they marched into combat. It is fine to give a soldier all he needs for all times, but you can overload him to the point of slowing him up and grossly tiring him out. Science can, and will, modernize the military man by miniaturizing everything from the

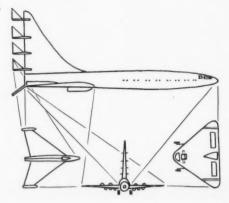
equipment he carries to the toilet articles he uses. Only by saving ounces and fractions of ounces in *all* items can the total soldier load be perceptibly lightened to give him more freedom of action, endurance, and less fatigue.

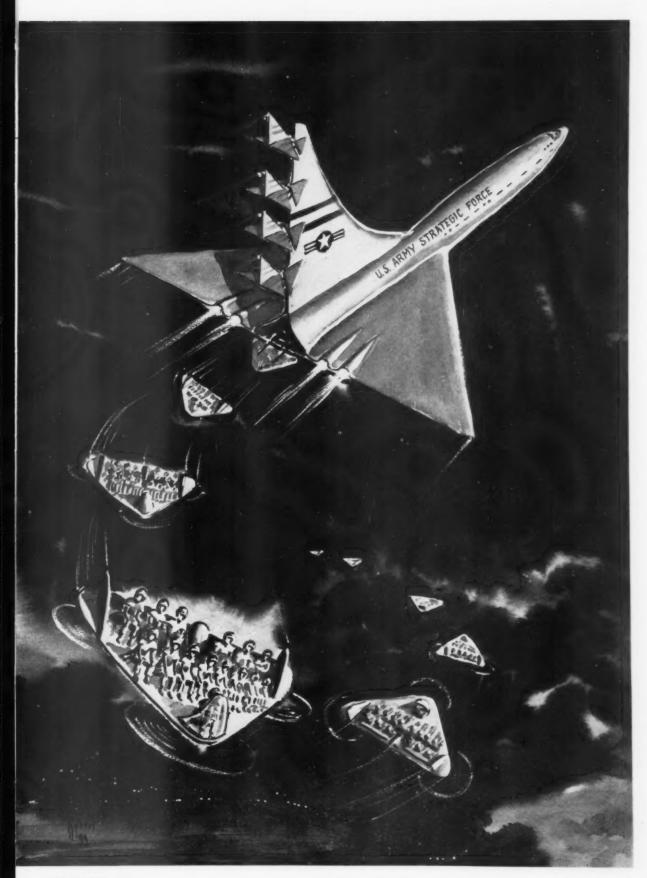
Automation comes to weapons, but bullets still kill

What weapons will these future soldiers use? They will man a variety of weapons, the majority of which are known in form today, and a minority of which are on the secret drawing boards of Army research and development projects. The individual weapon of the Futurarmy soldier will be an automatic carbine which will replace at least four of today's weapons: the M1 rifle, the carbine, the AR, and the submachine gun. It is likely that the ammunition will be lightened. Perhaps the shells could be made of plastic. In general, Futurarmy soldiers will be manning crew-served weapons ranging from machine guns and mortars to tank-destroying missiles like the Dart and a wide range of guided missiles. The final targets in any future conflict will be men. Even the enemy soldier pressing the pushbutton of a future missile can be killed by a bullet!

Protection for the soldier of the 1970's will not lie in his tunic alone. This soldier and his machines will move with dexterity in all demensions, thus providing the most elusive military targets in history—and one of the most offensive forces known to blitzkrieg. Because his forces will be elusive and thus destructive in consequence of their mobility, the new type of war will be built around man and not the missile. This three-D

Aerial Blitzkrieg is launched by vertical envelopment. A nuclear-powered transport unleashes flying platforms carrying land-spacemen to attack an enemy missiles base or similar strategic target. Still moored to the transport's rudder are the Centaurs—flying artillery—which can land or take off vertically from the ground or aircraft carriers. The Centaurs can also reattach themselves to the transport after attack against ground targets. Armed with multiple rockets the Centaurs may also double as fighters to protect the atomic-powered transport.





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The mechanical Mata Hari of the 1970s, this basket-sized robot, called the Owl, will be dropped in large numbers by missiles and aircrafts. Once on the ground these robot spies will upright themselves and begin periodic transmission of data on enemy concentrations of troops, tanks, and aircraft. This Owl, among many dropped, is pictured picking up the course of a flight of enemy rocket-copters.

technique will be born of nuclear stalemate, yet it will be readily and immediately adaptable to atomic conflict.

TWO extreme ideas will breed the new three-dimensional type of conflict. Idea No. 1 is largely a Communist theory that will be long in dying out despite new weapons developments. But the Reds, especially Communist China, still believe that masses of men make for military success. They also feel that these masses need only be marched and parachuted into battle to win. Idea No. 2, also a mistaken view, is shared mostly in Western quarters. It holds that future military success may be quickly attained largely by missiles and machines. Both myths are due to be shattered.

New forms of space travel are blossoming: the Con vertiplane, the Aerocycle, the Flying Platform, the Aerodyne, and the Flying Barrel. Advance these and related developments by two decades and there will be created a new and more sanitary form of war. Guided missiles will, of course, play an important role in this future type of conflict. But ballistic missiles will probably be too expensive to allot to anything but nuclear weapons. So

they will probably be on the shelf.

The Futurarmy soldier will be better protected and projected in combat than any soldier in history because science will modernize him and his environment. He will live, move and fight amid amazing weapons and machines-nuclear-powered helicopters, flying tanks, flying platforms, flying artillery, missiles, drone devices, and even mechanical spies. Where the missile can only be destructive, the Futurarmy soldier can be both destructive and possessive. Projected into battle zones by three-dimensional transport devices, this future soldier will be able to arrive and surprise his enemy with a force and suddenness never before known. His will be "doorstep warfare.'

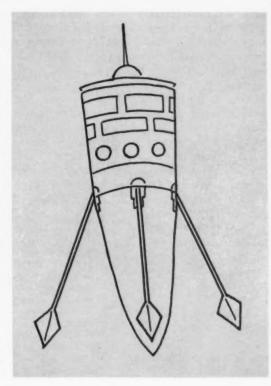
If war comes after 1974, Futurarmy soldiers will fight it, and end it. A thermonuclear conflict is unlikely by this future date because there will be cheaper means of conquest for the aggressor. By 1974 missiles will be almost as versatile as the airplanes of today. While they can carry nuclear warheads, they will carry other things just as effectively. Low-yield atomic weapons could be restricted to the battlefield in two more decades. However, they will probably not be used. Two reasons will account for this. First, the difficulty of defining "low yield." One can never count on an aggressor adhering to a signed agreement in war. Thus both sides will probably refrain from using atomic weapons, just as gas has been a non-used weapon since World War I. Secondly, the newly perfected form of three-dimensional war will be more effective in terms of results achieved. It will offer cheaper and more lasting victory. The three-D technique of conflict will be more final and possessive-and less destructive-than any previous forms of war since the Chinese invented the "silver bullet"-a cash inducement to surrender with honor.

If you were to wear the uniform and gear of a Futurarmy soldier in war you would find your duties involved strange vehicles and three forms of blitzkrieg. You might be carrying a spy in your arms-a mechanical spy to be loaded into a missile or aircraft. Or you might be strapping yourself into the most rugged air vehicle vet ridden by man-a triangular-shaped flying platform. You might find yourself ready to take off in a nuclear-powered helicopter, or a flying tank. You. could also be the gunner-pilot of a strange tri-deltawinged craft, the Centaur-the future substitute for a battery of artillery. The Centaur's three wings will be

> honevcombed with rockets fired out of wing tubes. This jet craft will be capable of vertical take-off and landing, and it will be able to attach itself to nuclear-powered aircraft in flight for automatic resupply of fuel and ammunition.

When you first go into action the public will be confused. Blame this on the fact that the war correspondents will be initially confused over the complex patterns of threedimensional war.

You will enter action in three general ways. First, you can rise up in flying tanks and platforms from naval aircraft carriers several hundred miles offshore to launch land blitzkrieg deep inland. Second, you can slide out of giant nuclear air transports on flying platforms to spill out on targets a continent away and conduct aerial blitzkrieg. Here



you might land to seize an enemy government, or just destroy enemy reserve forces. Third, you could go with the landair blitz force to conduct the tornado battles that would sweep and swirl across large areas of land. Wherever you are, you will not be in one place long because three-D conflict will be fast-moving.

There will be no bloody beach assaults when Futurarmy soldiers take off from scattered Navy carriers to converge on hostile forces. Enemy shore defenses, even inland ones, will be as obsolete as Chinese Walls in this

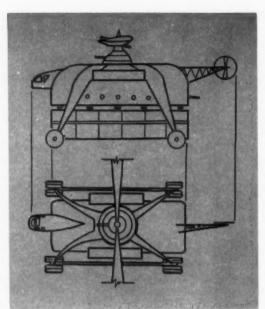
warfare of no boundaries or barriers.

Swarming in by air from several hundred miles at sea, your flying tanks, platforms and helicopters will descend like locusts on enemy troop units, airfields, missile bases, and key installations. Your mission: destroy all military forces within a given area. To help you do this, flying artillery and guided missiles will bracket the region and seal it off by striking any aggressor reinforcements moving to the scene.

About fifteen soldiers and a driver will ride in each flying platform. A cloud of these aerial jeeps will land with surprise and take off likewise to strike several targets in one day. Small TV screens on the platforms will serve to orient commanders as their forces skim the ground to approach targets, because ahead of them will be reconnaissance platforms and drone planes with TV cameras.

The tactical and time-space patterns of this conflict will tax commanders in a manner unknown in past wars. Commanders who cannot think in jet-pilot terms will not last long. The fighting will be on the ground—a series of short battles taking place in different areas, as the lightning force moves and swirls across country like a tornado. Battles will shift about the vortex of the ever-moving blitz force as tanks leap rivers and barriers. The vertical take-off Centaurs will combine the functions of present-day artillery and close-support aviation to help blast targets. In addition, medium-range missiles can be called in. This sea-launched campaign will aim to accomplish, in about two weeks, the destruction that has in the past required eight months of combat. This blitz could be over in one week!

AS THIS sea-launched conflict rages, a new scene will begin. A continent away, a fleet of nuclear-powered planes will take off to launch a new form of aerial blitz-krieg deep in the enemy homeland. Unlike today's



bombers, this fleet will not have to converge on the targets under attack and face heavy antiaircraft fire. These future transport planes will unleash Futurarmy soldiers in flying platforms, dropping them from fairly high altitudes, well outside the target area. There will be no bombing or bailing out over the target. There will be no mass formation of aircraft-only widely scattered groups of planes. Secret, sudden, and strategically subtle. this vertical attack will allow the unleashed platforms to come on target from all directions of the compass.

If you rode in one of these aerial blitzes you would be in one of a hundred transports disgorging about 1,200 platforms carrying 14,000 men plus some heavy

weapons and supplies. Sliding down rails inside the transport, your platform would spill out of the rear of the plane into the slipstream. Dropping down to hedgehopping level, the platforms would sweep in over treetops to converge on the target. Once engaged, you would not stop moving after your initial strike. Mobility and rapid movement would be your protection. Supplies would come in by long-range missiles and by airdrops from planes loaded up a continent away. However, you would quickly rendezvous on the evacuation target. Capturing one or several airfields, your force would hold them for the arrival of the evacuation transports. The cheap flying platforms would be destroyed just before your departure.

The mechanical Mata Haris

Unusual rumors will spread in enemy towns and villages as missile warheads and airplanes scatter strange cargoes in the air. Thousands of basket-sized capsules will plummet to earth, upright themselves, and then automatically extend their antennas. Many of these machines will be discovered. Strange reports will follow. But many of these gadgets will not be discovered.

The Hercules helicopter of the Futurarmy will be nuclear-powered and used for aerial transport of a wide variety of loads. Here they are depositing detachable cargo crates of supplies for 3-D combat units. They will also serve as flying hospitals, division command posts, mobile repair shops and such. Armed with guns, multiple rockets or miniaturized missiles, the Hercules will fly close to the ground to evade enemy jet aircraft. One of these atomic-powered craft will do the work of forty or more trucks and will virtually eliminate overland supply routes.



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Combining steel and new plastics this helmet will offer unusual protection and at the same time project soldier vision. The visor will contain various lenses in goggles that can be switched by the lens knob. Inside the helmet will be a transceiver for voice communication. The blackout lens will protect the eyes against nuclear blasts.

Elsewhere, thousands of Futurarmy soldiers will wait by their machines of war as these fantastic robot spies, called Owls, report on the location of enemy concentrations and installations. How will these Mata Haris work? Reacting to densities of metal vehicles, and the operation of engines, radios, and electronic equipment, these devices will transmit positive and negative information on the general location of enemy military units. The data these robot agents obtain will be automatically transmitted by radio. Thus, large and elusive military targets such as tanks and armored units, three-D helicopter squadrons on or near the ground, and densities of enemy aircraft can be located in short order. A unit, marching or flying into an area for bivouac,

could be automatically picked up by these Owls. Delivered in belts as well as in saturation patterns, these electronic-laden Mata Haris will operate twenty-four hours a day for a full year.

This future Owl seems fantastic until you look at the U. S. Navy's robot weather station, the Grasshopper. Air-dropped, the Grasshopper erects itself by automatic legs upon impact with the ground. Then the antenna shoots up. The parachute has alreády detached itself. This robot station takes weather information at predetermined intervals—wind speed, direction, temperature, barometric

pressure, and humidity. The Grasshopper transcribes these observations automatically into Morse code and transmits at the rate of seventeen words per minute by radio.

The Grasshopper operates from batteries for up to sixty days. The Navy is actually using this robot weather station in Operation Deep Freeze in the Antarctic. It promises to be the prototype of the mechanical spy which, among other things, will divert enemy effort into the biggest spy hunt in history.

Owls may be captured, but then thousands of others will not. Many will have done their work before capture. However, none will confess to anything when captured, because each Owl will have a "heart" boobytrapped with TNT!

Vortex collision and battle climax

The military showdown will be sudden and savage. Owl reports will bring long- and medium-range missiles on some targets; Futurarmy forces will descend on other new targets in air- and sea-launched blitz strikes.

Finally, a vortex of conflict will develop in one chosen region. This is the final strategic blow. It will be land blitzkrieg by a three-dimensional field army. This army is not going to be able to take off en masse and hover in the air. In fact, the better portion of it will not fly at all-because there will be a need for some real slugging power in the final combat phase. But a quarter of this army-the sky cavalry combat brigadeswill be completely three-dimensional; this element will leap ahead as well as outflank by vertical envelopment. It will set the pace for final kill, and kill with finality. All this is fine. But serious questions arise: What has happened to the logistical tail which provides food, ammunition, and fuel? How do the supplies get in and the wounded men get out? The primary answer to these and a multitude of other military questions is a future helicopter called Hercules.

With nuclear-powered engines and carrying up to

thirty tons in detachable cargo pods, three of these machines will do what forty-eight to sixty trucks do today. Traveling at a hundred miles an hour, these independent monsters of war will serve as supply carriers, repair shops, division and corps field headquarters, flying ambulances, and evacuation hospitals to get the wounded out of the battle areas in a hurry. These giant helicopters will virtually eliminate trucks, reduce supply depots, and eliminate the need for stocking large amounts of gasoline and oil. The long logistical tail as we know it today will become so shortened as to be



named the "bobtail." Thus will atomic energy serve us.

THIS is but a simple index to future techniques in war. Actually, such a conflict would be a very complicated one to manage and direct. It will also demand communications of an order unknown today. It would require the concerted effort of all armed forces. But it is a technique that will decisively answer aggression because it is ultra-swift, and responsive. Because it is both mobile and possessive, it will invoke the minimum of destruction and provide the best basis for a peace.

Even an aggressive government will be liable to sudden

It is only a question of time until this technique and this mobility will be developed. In less than twenty years we may have to keep Communist soldiers off our doorsteps. If we develop a three-dimensional warfare capacity we can prevent the next form of war—the three-D. This we can do, if we retain technological superiority in all fields of endeavor, especially in the scientific projection and perfection of man—the real target in conflict, and the ultimate instrument of war.

LIKE the author of the new "biographical novel," King of Paris, LIEUTENANT COLONEL ROBERT B. RIGG has "relied on research without being bound by it" in "Soldier of the Futurarmy." The novelist's purpose was to extend the bare facts of the life of Alexander Dumas into a clearer, larger, more lifelike figure. Colonel Rigg's self-evident purpose is to create a picture of the battlefields of the last quarter of the Twentieth Century by putting imagination and creative thought to work on the products of research and development, current and foreseeable.

Such an attempt demands a high order of creative work. It requires an imagination unfettered by the past, but disciplined to work within the bounds of



the possible. It is only when this is done, as Colonel Rigg has done it, that we can begin to see the problems of the future and to prepare ourselves mentally and morally for the world our ingenuity and material resources are in the process of creating.

A quiet, slow-speaking and modest man, Colonel Rigg can't be labelled as a scholarly intellectual, although he is both, nor can he be called the artistic type, although he both paints and writes with a high degree of artistic skill. He is an active man whose military career has had more elements of the stuff of historical novels and Alfred Hitchcock thrillers than is vouch-safed most soldiers.

He began it in the Illinois National Guard as a member of the hard-riding Chicago Black Horse Troop which went in for Cossack style riding—a form of Russian roulette played with horseshoes firmly nailed to flashing hoofs. This experience became useful to him in 1943 when he served as a G2 observer with the Soviet Army Cossacks. Other G2 assignments during the war years were with the Soviet Army in Europe and Manchuria. During these assignments he incurred the displeasure of the NKVD and was twice arrested by them.

Late in 1945 he was sent to China to observe the civil war, and eventually was awarded the Commendation Medal for the excellence of his reports on Chinese Communist tactics. As a member of General George C. Marshall's staff on the mission to China, Colonel Rigg accompanied several Chinese Nationalist armies into combat, and he and then Captain John W. Collins were captured in Manchuria in 1947. They spent thirty-four days in a Chinese Communist prison, courtesy of Mao Tsetung, and were tried for espionage. Failing to extract a confession, they were found guilty of "reconnoitering Communist lines" and released. His distilled experience in China, coupled with sound scholarship, resulted in Red China's Fighting Hordes, the first knowledgeable book on the tactics and methods of the Chinese Communist Army. In 1951 he participated in the Eniwetok atomic tests on the staff of Task Force III. After that he was able to get back to troop duty, commanding in succession a tank training battalion, and the Armor Leadership Battalion at Fort Knox, and then the 15th Constabulary Squadron and the 1st Battalion, 6th Armored Cavalry, in Germany. His imaginative approach and creative zeal resulted in the development of realistic training methods that he later had published in a book called Realistic Combat Training. This book came to the attention of General Gavin, and Colonel Rigg was assigned to VII Corps under him. Later Colonel Rigg was ordered to duty in the Pentagon.

A few months ago one of his magazine articles attracted the attention of a group of scholars who are investigating the sources of creative thought, and they invited him to participate in their eggheaded deliberations. When they read the present article, which is part of a book Colonel Rigg is writing, they'll probably make him either their principal guinea pig or their chairman. His versatility is such

that he would be good at both.

MacArthur's **Divided** Command

CAPTAIN MARTIN BLUMENSON



Brilliant expedient or unwise flouting of the principle of unity of command?

CONTROVERSY was no stranger to General Douglas MacArthur's long and truly illustrious military career. And not the least disputed were his command arrangements for the Army forces in Korea during the last three months of 1950. In sending two adjacent but separate and independent ground commands toward a common objective, he seemingly violated the principle of war pertaining to unity of command. This decision aroused debate soon thereafter, and has never been completely quieted. Much has been said on both sides, a great deal of it privately and sometimes with heat or bitterness. Some persons believe that General MacArthur's mission, his available forces, and the terrain made his command arrangement a brilliant solution of a difficult problem, or at least an unavoidable expedient; others maintain that the arrangement was an unsatisfactory application of military

doctrine to the Korean situation.

Since the events are little known and generally not well understood, an examination of the "divided command," the reasons for it and its effects, would seem to be warranted.

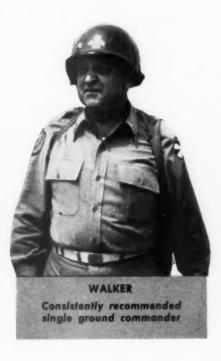
Pre-Korea command arrangements

Before hostilities commenced in Korea in June 1950, General MacArthur performed two distinct functions at his headquarters in Tokyo. He was Supreme Commander, Allied Powers (SCAP), head of the (British, French, Soviet and U.S.) Allied Control Council, which administered the occupation of the World War II enemy territories of Japan, the Ryukyus, and the Marianas. He was also Commander in Chief, Far East (CINCFE), the commander of all U.S. military forces in the same area. In the same way that U. S. Air Force and Navy units were organized into subordinate commands

under MacArthur, the U.S. Army combat troops in the area came under the direct command of General Walton H. Walker, Eighth Army commander, also in Japan.

Instead of setting up different headquarters for his various functions, General MacArthur chose to use a single staff. His principal staff officers thus acted, like their chief, in a double ca-

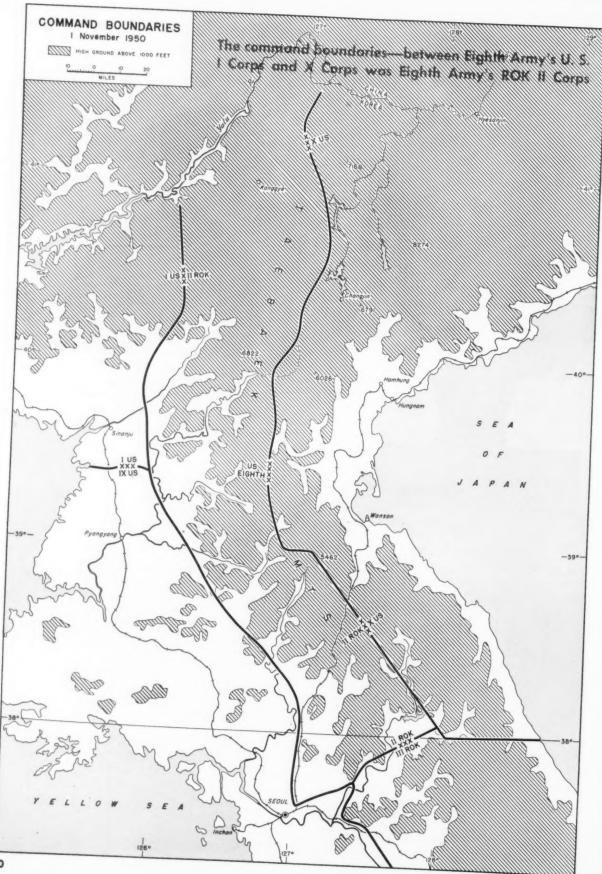
The outbreak of hostilities in Korea soon brought General MacArthur another responsibility. He became Commander in Chief, United Nations Command (CINCUNC)-the supreme Allied commander for air, naval and ground forces in Korea. Since the Republic of Korea (ROK) was not a member of the United Nations, President Syngman Rhee requested MacArthur to take command of the ROK troops as well. MacArthur delegated this authority to General





The imposing Taebaek range split northern Korea into two parts





Walker, Eighth Army commander, whom MacArthur had already sent to Korea to direct the land forces en-

gaged there.

Less than a month after the conflict began, then, the pattern of command was established: General MacArthur, still SCAP and CINCFE, exercised the prerogatives of CINCUNC, while in Korea General Walker commanded all United Nations and ROK ground forces.

By September General Walker's Eighth Army had grown to four U. S. Army divisions, a Marine Corps brigade, a British brigade, and five ROK divisions. In that month, U. S. I and IX Corps headquarters arrived in Korea as subordinate headquarters (with two ROK corps headquarters) of Eighth Army. Meanwhile, however, MacArthur had taken the Marine Corps brigade out of the Pusan perimeter to employ it in conjunction with an operation launched from Japan.

Plans for the Inchon end run

Almost from the start of the Korean conflict, General MacArthur had worked on plans for a decisive blow that would clear South Korea of North Korean forces. Having conducted amphibious operations with striking success during World War II, MacArthur quite naturally thought in terms of such maneuver. By landing seaborne troops behind the hostile front in a grand envelopment, MacArthur hoped to outflank and destroy the North Korean forces opposing Walker.

To plan and execute an amphibious assault, MacArthur created a new command: X Corps headquarters. He placed in command of the new corps

Captain Martin Blumenson, USAR, came into the Army in 1942 after earning his Master's degree at Harvard. During World War II he was Historical Officer for Third and Seventh Armies and later for ETO. After teaching history at Hofstra College and the U.S. Merchant Marine Academy he returned to active duty during 1951-52 and served as CO, 3d Historical Detachment, in Korea. While on duty in the Office of the Chief of Military History he wrote Breakout and Pursuit (the account of the Battle of France), a forthcoming volume in the Army's official history. He is now Historian of Joint

his Deputy Commander and Chief of Staff, Lieutenant General Edward M. Almond, who retained his other positions as well.

The plan eventually formulated envisaged an X Corps landing on the Korean west coast at the port of Inchon. A Marine Corps division and the Army's 7th Infantry Division would advance from Inchon eastward to Seoul to cut the main communications system of the country, thereby blocking the forces besieging Walker two hundred miles to the southeast. Simultaneously with the Inchon landing, Eighth Army would attack to the north to join with X Corps. The enemy forces in between, threatened with encirclement from the rear, would be able to escape from South Korea only through precipitous, almost trackless mountains to the northeast. With South Korea cleared of hostile troops, MacArthur would have accomplished his mission of restoring the status quo ante bellum.

The operation was an unqualified success. Almond's Inchon landing began on 15 September, Walker's attack started on the following day, and on 26 September troops of X Corps and spearheads of Eighth Army made contact. By then the Red Koreans were in retreat.

Plans for the Wonsan landing

Although X Corps might have come under Eighth Army control, General MacArthur had other plans. Since hostile troops had escaped to North Korea and since South Korea was deemed still not safe from further aggression, MacArthur received authority to cross the 38th parallel to destroy the remainder of the North Korean army. To accomplish this, he ordered Walker to move his forces north to Seoul and advance to Pyongyang, the capital of North Korea, through the western portion of the peninsula. X Corps, meanwhile, was to remain an independent tactical force, board ships for transportation around the peninsula to the east coast, land at the port of Wonsan, then attack westward to join Eighth Army at Pyongyang. The period of the socalled "divided command" began at this

By the time X Corps reached Wonsan by water, an ROK corps under Eighth Army had already advanced overland to secure the port. Extensive minesweeping operations in the harbor were necessary before X Corps could come ashore, and by this time Eighth Army had not only captured Pyongyang but had also moved a regiment almost to the Manchurian border. Since it was obvious that only disorganized fragments of the North Korean army remained, MacArthur cancelled the westward movement of X Corps toward Pyongyang and directed Walker and Almond to move their forces to the northern boundary of Korea.

As the advance of the two independent forces during the bitter-cold month of November seemed about to terminate successfully at the Yalu River, Chinese Communist Forces entered the conflict and forced the United Nations troops to withdraw to the south. Victory proved to have been a precarious possession.

Deciding to consolidate his ground forces, General MacArthur ordered X Corps to evacuate North Korea by way of Hungnam, board Navy vessels there on the east coast for transportation to Pusan, and come under Eighth Army. Late in December, when X Corps became part of Eighth Army, the "divided command" came to an end.

THE period of the "divided command" had opened at a time of great optimism. The Korean conflict seemed to be nearly over. Three months later the United Nations forces in Korea were again engaged in a grim struggle. The change was brought about by the effective entry of the Chinese armed forces into the action. Yet the extreme pessimism of the United Nations situation at the end of 1950 provoked bitter discussion of how victory in September had been lost. Some persons ascribed the United Nations reverses to Mac-Arthur's mistakes-his decision to drive to Manchuria, his failure to interpret correctly intelligence reports of the presence of Chinese forces in North Korea, and his retention of Eighth Army and X Corps as two separate tactical commands.

It is with the latter that we are concerned here. Did MacArthur's groundcommand arrangement violate the principle of war pertaining to unity of command? And did his command arrangement hamper United Nations ground operations?

The doctrinal record

According to Army doctrine (the basis of instruction for all the arms and services), MacArthur would appear to have erred in maintaining Eighth Army and X Corps as inde-

pendent ground commands. In the year before the Korean conflict, unity of command was expressed as being "that unity of effort which is essential to the decisive application of the full combat power of the available forces. Unity of effort is furthered by full cooperation between elements of the command." (Field Manual 100-5, Field Service Regulations: Operations, August 1949.) Five years later, in restating its doctrine, the Army defined unity of command somewhat more pointedly: "The decisive application of full combat power requires unity of command . . . [which] obtains unity of effort by the coordinated action of all forces toward a common goal. It is best achieved by vesting a single commander with requisite authority. Unity of effort is furthered by willing and intelligent cooperation among all elements of the forces involved." (FM 100-5, September 1954.) More explicitly in the same manual: "Once military operations have begun, they cannot be conducted as two or three coordinated, but separate efforts. The efforts of all components of the military forces must be directed toward attainment of the same general objective and under one commander.'

The creation of X Corps and its employment for the Inchon landing outside Walker's realm of activity did not disrupt Walker's command responsibility nor detract from his authority. Doctrine recognizes that a separate corps may perform a task force type mission and that a corps headquarters, though primarily a tactical agency, may be augmented by additional personnel, equipment, and service-type units to enable it to assume administrative functions and operate independently as a separate command. This applied to X Corps and was normal. So too was MacArthur's instruction to Walker to be ready to assume the logistical support of X Corps after juncture of the two forces.

Though Walker and Almond had no word from MacArthur on the matter, both commanders could anticipate that X Corps would become part of Eighth Army upon completion of the Inchon mission. Walker would then control (in addition to ROK troops) three U. S. Corps (I, IX and X), each of which would in turn direct two U. S. divisions, a perfectly normal command arrangement. That MacArthur instead chose to continue the separate existence of X Corps for the Wonsan operation

could be considered at variance with normal practice.

Variation is not the same thing as blunder. The Army realizes that "while the (fundamental) doctrines of combat operations are neither numerous nor complex, their application may be difficult" and cautions that "set rules and methods must be avoided." (FM 100-5, August 1949 and September 1954.)

THE principles of war, which every young officer learns early in his career, are guides for action that have been distilled from military experience during the ages. When followed, the principles seem to have brought victory. They are "fundamental truths," the Army tells us, and "their proper application is essential to the exercise of command and to successful conduct of military operations. The degree of application of any specific principle will vary with the situation and the application thereto of sound judgment and tactical sense." Although the principles of war are "immutable, . . . doctrines, tactics, and techniques" are not. (FM 100-5, September 1954.)

In other words, as the British historian, Major General Sir Frederick Maurice, put it, the principles of war are not "items of a recipe, which when properly compounded, will produce victory." Exactly what "their proper application" may be in any given situation is always the problem, and it is that which makes warfare more than a science and gives it some of the characteristics of an art.

Influence of special considerations

A GREAT artist in any endeavor—sculpture, writing, military operations—may deliberately violate a principle of his craft (an act not recommended for a novice) and achieve thereby an unexpectedly beautiful effect. His departure from principle may be intuitive, in the nature of a gamble, or a necessity forced by special considerations. Assuming for the moment that MacArthur violated unity of command, did special considerations exert their influence?

General MacArthur's mission in July was the restoration of the *status quo* in Korea, accomplished as the consequence of the X Corps landing at Inchon. In October MacArthur received a new mission: to destroy the North Korean war machine, which sanctioned crossing the 38th parallel. In order to crush the defeated North Korean ar-

my out of existence, MacArthur decided to sweep North Korea of the remaining enemy forces. Such a large clearing operation could best be accomplished, in view of the weak opposition, by a broad-front movement to the Yalu. Yet since the imposing Taeback mountain range generally divides the Korean peninsula into two coastal compartments, MacArthur kept his available forces divided. Eighth Army drove north in the sector west of the Taebaek range. X Corps, after being transported by water to Wonsan to avoid a hazardous and wearing crosscountry advance, began its attack on the eastern side of the Taebaeks. What MacArthur had done was to follow the dictates of the terrain and separate his two field commands, both of which were capable of independent action. To coordinate the army and the separate corps, MacArthur provided a unity of ground command in his own person.

The Taebaek barrier

MacArthur's arrangement seemed logical not only because of the Taeback barrier but also because of the shortage of signal communications facilities in Korea. As Eighth Army and X Corps drove toward the Yalu, each was largely ignorant of the other's whereabouts. A physical gap developed between the two forces that even patrols did not bridge because of exceedingly rough terrain and the presence of strong guerrilla forces. At the daily Eighth Army briefings held in Seoul in the early afternoon, X Corps liaison reports were read that were delivered by air but were by then thirty hours old. Since Walker, though earlier in the Korean action the ground forces commander, lacked the means to coordinate the operations, it was more effective for Almond to communicate directly with MacArthur in Japan, as did Walker. The result was that MacArthur in actuality directed the ground forces in Korea, exercising thereby a unity of ground command in his own person as CINCUNC.

An alternative arrangement would have been for General MacArthur to establish in Korea an intermediate headquarters between Tokyo and the two field forces. But the addition of another headquarters to the command structure, particularly in late September or early October when the North Koreans were decisively defeated, would have seemed superfluous.

The question of precedents

Precedent for MacArthur's command arrangement existed in General Eisenhower's method of exercising command in Europe during World War II. The similarities are striking, even to the extent that the operational base in each case was an island-the British Isles and Japan. As commander of ET-OUSA, General Eisenhower had had all the U.S. Army (and Army Air Forces) units in the theater under his jurisdiction. He had also commanded SHAEF, the supreme Allied headquarters that controlled all land, air and sea forces assembled for the invasion of Europe. Without a specific headquarters, using SHAEF for the purpose, Eisenhower had also taken upon himself the direct command of the Allied land operations on the Continent. He had thereby replaced General Montgomery who had served as the pro tem ground forces commander during the early stages of the invasion. In much the same way, without creating a ground forces headquarters for Korea, MacArthur replaced Walker and himself assumed command of the allied land forces on the Asiatic con-

Despite these similarities there were striking differences. General Eisenhower had functioned with the aid of two different and separate staffs, one to man the headquarters of ETOUSA (with a deputy commander to run it), the other to function at SHAEF. General MacArthur used but one staff for all his tasks. Eisenhower had quickly gone to the European continent to be in close touch with combat developments on the front and had moved SHAEF to the Continent as soon as possible. MacArthur, in contrast, did not establish a command post in Korea to direct the ground operations, mainly because, unlike Eisenhower who had no responsibility to occupy or govern England, MacArthur had the mission of supervising the post-World War II development of Japan, an assignment he could not discharge properly from the battlefield of Korea. The result was that MacArthur remained in Tokyo.

The water between Japan and Korea and the four hours' flying time between Tokyo and the front, it may be argued, were not enough to break the chain of command. Yet despite frequent visits by airplane to the combat zone, MacArthur's distance from the battle and his other important duties and

responsibilities in Japan could not but prevent him from gaining the intimate personal knowledge of the situation that a commander on the ground would have had.

Success or failure is the test

Since variance from principle is not necessarily bad, the real test of an operation is not whether it goes according to the book but whether it succeeds. The reverses that followed the entry of the Chinese into the Korean conflict have tended to obscure the question of whether General MacArthur's command arrangement hampered ground operations during the period under consideration.

A firm answer is impossible. Yet there is evidence that the results of the "divided command" left much to be desired. Arguments in support of this point of view occur in three areas: the conduct of operations, the logistical situation, and the peculiar relations that existed between the two commands in the field.

Given the strategy conceived by Mac-Arthur and exercising command over all the ground forces in Korea, the hvpothesis goes, Walker might well have worked out the tactical arrangements with less difficulty and less confusion than MacArthur did. Perhaps the most striking divergence of operational thought emerged from their reactions to the concentration of Chinese forces near the Manchurian border. Walker did not seem so eager as MacArthur to rush toward Manchuria, and despite MacArthur's explicit desire he planned a restrained and careful movement. A slower advance, with both field forces more consolidated, an occurrence likely to have taken place under Eighth Army direction, might have permitted the establishment of adequate lateral communications between the units separated by the Taebaek mountains.

Had X Corps come under Eighth Army control after Inchon, the thesis continues, Walker would probably not have displaced X Corps from the Seoul area to make an amphibious landing at Wonsan. It is doubtful that Walker would have moved X Corps from the Seoul area because the corps was already in position to continue operations either to the east overland to Wonsan (as first planned) or to the north to Pyongyang (as Eighth Army eventually did). Taking X Corps out necessitated replacing its troops with forces of Eighth Army. I Corps actually moved into the Seoul area and then

toward the North Korean capital, perhaps an unnecessary troop dislocation, for I Corps could have gone overland directly to Wonsan.

General MacArthur's desire for the port of Wonsan stemmed from the relative isolation the Taebaek range imposed on the east coast of Korea and from the inadequacy of overland transportation along that coast. To support the forces that were to clear the northeastern portion of the peninsula, a port on the Korean east coast was necessary. Because of the restrictions that the Korean terrain placed on mechanized movement, General MacArthur moved X Corps to Wonsan by water. Though General Walker was well aware of the difficulties of overland movement, he probably would have accepted them and, if in command of all the ground forces, he would likely have sent forces north from Taegu or east from Seoul, as the overland drive of the ROK corps to Wonsan indicates. Transporting X Corps to Wonsan by water interferred with Walker's logistical plans and impeded his supply operations.

Walker had assumed that X Corps would come under his control after Inchon, and he had planned to give it initial logistical support by supplies received through that port. Ordered instead to give first priority at the Inchon harbor to getting the Marine Corps division and other X Corps units back aboard ships for the trip to Wonsan, Walker found it impossible to discharge incoming supplies. Since limited facilities at Inchon did not permit simultaneous unloading of shipping and embarkation of troops, discharging activities were drastically curtailed for three weeks. Virtually denied the use of the port during this period, Eighth Army moved supplies overland from Pusan, a difficult and hazardous operation. But not even the port of Pusan was functioning wholly to unload incoming supplies. Some facilities were used to outload the 7th Division of X Corps.

Confused logistics

The commander operating the port of Pusan under Eighth Army control was alerted to the task of outloading the 7th Division by General Walker. Soon afterward an administrative order issued by X Corps arrived at Pusan directly, without having passed through Eighth Army headquarters, a rather unusual procedure. Dated 8 October, the X Corps order directed the Pusan port command to outload 25,000

troops and fifteen days of supply of all classes for those troops in one week -between 10 and 17 October. On 9 October, the day following receipt of the order, a X Corps advance party arrived at Pusan to expedite and coordinate the outloading operation. At a conference called immediately to determine requirements, little could be decided, for the units then on their way from the Seoul area had departed on such short notice that there had been no time for shakedown inspections to determine the extent and the nature of supply deficiencies. Furthermore, it became known that some of the supply ships that had gone to Inchon from Japan to support the X Corps landing had not been unloaded; presumably these ships would not be unloaded at Inchon but would probably accompany X Corps to Wonsan; what these ships contained was a mystery. Though the troops and supplies were outloaded in the required time, the lack of precise knowledge of X Corps supply stocks (due primarily to the fact that X Corps was outside Eighth Army's chain of command) caused gasoline and oil shortages to appear immediately in the Wonsan area. Soon afterward ammunition deficiencies became evident as well.

The Pusan port command was further required to furnish resupply items for the 75,000 troops (including ROKs) of X Corps at Wonsan. In fulfilling this mission, the logistical command depleted Eighth Army depot stocks, particularly in gasoline and oil, winter clothing, combat rations, and PX comfort items. The issue of these supplies to Eighth Army units was delayed.

Although General Walker was charged with the responsibility of rendering logistical support to General Almond in North Korea, it was virtually impossible for him to do so. Communications difficulties prevented accurate exchanges of knowledge on resources and needs. Eighth Army forward depots were not oriented to distribute supplies to X Corps. Rail lines from South Korea to Wonsan were non-operational. Distance, terrain, and guerrilla activity made vehicular transportation hazardous. Because air transport was extremely limited, the only feasible method of supplying X Corps was by water, from Pusan and directly from Japan. General Almond's headquarters consequently operated a logistical system proportionately as extensive as that of Eighth Army. Not until

December when the corps became part of Eighth Army was it relieved of the burden of determining requirements, drawing requisitions, allocating and

distributing stocks.

The existence of X Corps as a command independent of Eighth Army required a virtually equal division of service-type units. In a theater unit that was constantly short in manpower, units, specialists, and equipment, distribution of available resources to both meant that neither obtained enough. Augmenting X Corps had deprived I and IX Corps of needed services, particularly of signal facilities, quartermaster truck companies, and ordnance repair units. Yet the augmentation did not assure adequate services for X Corps.

Lack of harmony

Perhaps the most damning aspect of the command situation in Korea was the lack of harmony that characterized the relations between the two forces. A surprising amount of jealousy, distrust and resentment flared into open relief when representatives of both commands met in December to coordinate the integration of X Corps into Eighth Army. The immediate cause of the overt disharmony arose over the disposition of four ships loaded with supplies.

These four ships had departed Japan with emergency supplies for X Corps shortly after the Chinese entry into the conflict. Before the ships reached their destination, Hungnam, MacArthur ordered Almond to evacuate North Korea by sea transport from that port. The four supply ships were consequently diverted to Pusan and unloaded there. Did these supplies, which had been allocated to X Corps before the corps was ordered to come under Eighth Army control, belong to X Corps or to Eighth Army? Should the supplies be issued to X Corps units only? Or should Eighth Army "confiscate" them and distribute them to all the troops? The heated and angry discussion, ending with the decision that the supplies belonged to all the troops, was the climax of friction that had started even before X Corps arrived in Korea, a friction so extreme as to indicate an unnatural and unhealthy rivalry between the staffs.

Resentment born at Inchon

The roots of the matter lay in the preparations for the Inchon landing. While MacArthur had gathered personnel and matériel in Japan for the projected X Corps operation, Walker's troops had battled desperately in the Pusan perimeter. Replacements, additional units, equipment and supplies that might have gone to Walker were instead building up Almond's forces in Japan. Even the Marine Corps brigade had, over Walker's protests, been pulled out of the perimeter. Mac-Arthur's superb application of the principle of economy of force was hardly appreciated by the men in the perimeter who were fighting with their backs to the sea.

Some persons at Eighth Army headquarters later maintained that the Inchon landing was a dangerous grandstand play, dangerous not because of the potential enemy resistance at Inchon (which turned out to be negligible) but because the tidal conditions, the mud flats, and the possibility of minefields had made the contemplated operation a gamble that Mac-Arthur's naval advisers had opposed. Furthermore, the argument ran, the Inchon landing had been unnecessary. The North Korean forces outside the Pusan perimeter had actually numbered less than half the United Nations forces in defense. With the enemy supply lines stretched to the breaking point and enemy troops short of weapons and ammunition, the concentration of strength gathered for X Corps if applied in the Pusan perimeter would have defeated the North Koreans in less spectacular but less hazardous manner.

Resentment born in the perimeter was fanned at the juncture of the two forces south of Seoul. Troops of Eighth Army's 1st Cavalry Division had driven north to make the actual physical contact with X Corps. Since the cavalry troops were closer to X Corps supply depots than to Eighth Army stocks, they could have been more expeditiously resupplied by the corps. Yet General MacArthur, apparently having decided to move X Corps to Wonsan, wanted General Almond to conserve his stocks and he forbade him to issue any but emergency supplies to Eighth Army units.

Unequal logistical demands

Charged with the logistical support of X Corps, Eighth Army tried to give X Corps the same amount of supplies that it allocated for its own I and IX Corps. Though on the surface this

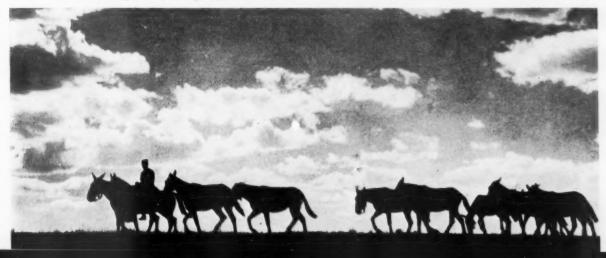


The 4th Field moves out on the 11-day hike across a high and arid plain between Fort Carson and Cheyenne

SALUTE TO THE OLD WEST

Cheyenne's rip-roaring Frontier Days wouldn't seem right without the presence of mounted troops of the U. S. Army, so every year the training schedules of the 4th Field Artillery Battalion (Pack) and the 35th Quartermaster Pack Company call for a 190-mile march from Fort Carson, Colorado, to Cheyenne

Silhouetted against the big sky, mules of the 35th Pack follow a bell mare to a water hole





It's a walkin' Army. The mules are laden with 75mm pack artillery



Watering in a clear mountain stream at a bivouac in northern Colorado



On bivouac chow comes after the animals are watered, fed and bedded down for the night



Troops in the field are always happy and these horse-soldiers are no exception. The 4th Field and its supporting 35th Pack Company are the Army's only mounted combat and logistical support outfits.

NOVEMBER 1956

THE MONTH'S READING

As is our occasional practice, this department this month departs from its usual formula to present a single article. More unusual is the nature of the article—an editorial appearing in the 24 August 1956 issue of the official Soviet army newspaper, Krasnaya Zvezda (Red Star). The significance of the editorial goes beyond its ostensible appeal to the troops to "shape up," and the vicious remarks directed at the "imperialists." There is in it a continuation of the emphasis on surprise attacks which was noted in our September issue in the article "Soviet Military Thinking Since Stalin." As Major Walter D. Jacobs, Infantry-USAR, who made this translation observed, this "line may be a self-serving one of preparing the Soviet armed forces (and the Soviet people) for the launching of a surprise attack by the USSR against us in order 'to frustrate the underhanded plottings of the imperialists."

'Vigilance Is Our Weapon'

EDITORIAL

Krasnaya Zvezda (Red Star) 24 August 1956 Translated by MAJOR WALTER D. JACOBS

VIGILANCE is our weapon," say the Soviet people. And, in truth, a high vigilance is a powerful weapon in the struggle against the enemies of the socialist Fatherland. It enables our people to see through the insidious plans of the imperialistic intelligence services, in good time, and to frustrate the black designs of reactionary imperialistic forces.

Be on the alert, protect, as the apple of your eye, the defensive capacity of the homeland and of our armed forces—this is the advice of the great Lenin. Piously observing this advice, the toilers of our country have always manifested a high revolutionary vigilance and attention to the strengthening of the might of the Soviet army and navy.

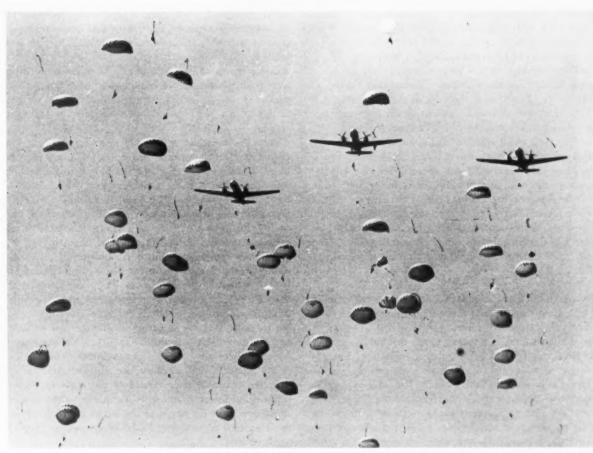
The necessity of maintaining constant vigilance was dictated by the situation and conditions in which the Soviet people had to build a new life. For more than a quarter of a century our homeland was the only country pioneering the path to socialism for mankind. Enemies dispatched a huge quantity of spies and diversionists against us, attempting, by all means, to undermine the first socialist country in the world. Inside the country, a bitter class struggle had gone on for a long time. Thanks to high vigilance and mobilization preparedness, thanks to heroism and creative activity, the masses of the Soviet nation, under the leadership of the Communist party, overcame all obstacles in their path, crushed all enemies and built socialism—accomplishing thereby a most historic feat.

Now the USSR is no longer the only socialist state in the world. Socialism has burst the bounds of a single country and has been converted into a world system. Now the mighty socialist camp unites more than a third of all mankind. The positions of capitalism are greatly weakened; the sphere of its influence is notably narrowed.

MPERIALISM, however, continues to rule in many countries of the world and has not ceased its attempts to recover lost positions. Every success of the socialist camp, every step toward the easing of international tension creates anger and hatred among the bosses of the monopolies. They are striving, at any cost, to foil the successful struggle of the peoples for peace, to reactivate the bankrupt policy of "cold war." The monopolists are creating aggressive international unions and blocs, such as NATO, SEATO and the Baghdad pact, they continue haste in armament, they are reviving the German Wehrmacht, and they are threatening mankind with atomic and thermonuclear weapons. The advocates of the policies of "positions of strength" and "cold war" are conducting subversive activities against our homeland, assigning millions of dollars to this filthy task, attempting to feel our our air boundaries and to damage the defensive capacity of the USSR.

These and many other facts speak of the necessity, now and in the future, of maintaining high vigilance and not permitting complacency and placidity. The Central Committee of the CPSU [Communist Party of Soviet Union], in its historic decision "On Overcoming the Personality Cult and its Consequences," emphasises that it is not permissible to tolerate carelessness in connection with the new intrigues of imperialist agents attempting to penetrate the socialist countries in order to damage and undermine the achievements of the workers. From the Soviet people are demanded a continued vigilance, skill in recognizing all the intrigues and devices of the enemy and the employment of all measures for the further strengthening of the socialist state.

Vigilance is necessary everywhere—in every area where a Soviet person toils. It is all the more necessary among the troops of our armed forces, to whom the nation has entrusted the honorable and crucial task of defending its



Soviet Army parachutists fill the sky near Moscow. While the Kremlin has long encouraged parachuting as a civilian sport, the translator of this editorial, Major Jacobs, reports that recently Red Star has been speaking of the need for a stepped up program of airborne training

peaceful works and reliably guarding the interests of the Soviet government.

For the Soviet soldier, vigilance is not only a duty as a citizen and patriot to his homeland—in it is contained the meaning of his service. It signifies, first of all, a continuing preparedness on the part of every soldier for immediate, decisive action against any enemy who dares to encroach on the freedom and independence of the socialist fatherland. In vigilant performance of service, in skillful proprietorship of entrusted weapons, in selfless defense of the homeland from the encroachment of enemies lies the highest duty of every service man. And wherever the soldier may perform his service he must remember the duty entrusted to him by the people, the party and the government and piously fulfill his military duties.

THE soldier must display vigilance in concrete, practical matters and in daily training. If he thoroughly masters his weapons, if he undertakes training with zeal and diligence, if he irreproachably executes guard and watch

duty, if he strictly keeps state and military secrets—this means that he is truly vigilant.

The securing of high vigilance and continuing military preparedness is inconceivable without strict military discipline. Vigilance and discipline are inseparable one from the other. True vigilance can be attained only through strict discipline and the exact maintenance of the prescribed order by every soldier.

A most important duty, and one of the first order, of our commanding cadres is to raise, in every possible way, the vigilance of the personnel of the army and navy. Commanders are obliged so to organize training and education of subordinates as to form, in the course of the training itself, high moral and military qualities and, in particular, such an important quality as vigilance, in order that these qualities have an influence in the entire life of the units, subordinates and ships in the improvement of their military preparedness.

OR instance, does Captain Kravchenko understand his mission? In matters of mastering new techniques, in the

course of the performance of sentry duty and in educational work with individuals, Captain Kravchenko strives to assure that every soldier accepts full responsibility for the fulfillment of his duties and is disciplined and vigilant. To the attainment of this goal he directs the most active group of the unit, the Komsomol [Communist Youth] organization. The results of the work of the commander and of the entire battery staff are attested in the high showings in training and in successful performance of duty.

More goals of all types in raising the standards of vigilance among the troops remain before the political organs, the party and Komsomol organizations. They must educate troops in the spirit of selfless loyalty to the military oath, they must explain to them the internal and external policies of the Communist party and the peculiarities of the contemporary international situation, they must tirelessly expose the underhanded plottings of the imperialists and they must mobilize personnel to the selfless fulfillment of their duties.

No ur units, detachments and on ships, great work in educating soldiers, sailors, non-commissioned officers and officers in the spirit of high vigilance is being conducted. At the same time, it must be stated that the range and form of this work does not always fulfill the demands charged to the armed forces by the party and the people. Up to the present time, this work has had, in several units, an abstract character. Feebly explained to the troops is the fact that concrete manifestation of vigilance is shown by their excellence in training, discipline, and masterly proprietorship of weapons and battle techniques. In agita-

tional-propaganda work there is insufficient disclosure of the content of vigilance, its indissoluble union with the goals of improving the military preparedness of units and subordinates, and the strengthening of discipline and a sense of organization. Little utilization is made of living facts from the practice of training and education, of examples of valor by troops in the execution of their duties in the defence of the borders of our country by land, sea and air.

All work in vigilance training must be raised to the proper level. At the present time war is not a fatal inevitability. Thanks to the efforts of the Soviet Union and of other peace loving states, a definite lessening of international tensions has been attained. This does not at all mean, however, that the danger of military attack on our country has passed. It is necessary to explain to all troop personnel that the current international situation gives no grounds for complacency but rather obliges us to be constantly on the alert and to strengthen our military might. It follows that the goals set by the Twentieth Congress of the CPSU must always be remembered and religiously fulfilled-vigilantly to keep an eye on those circles who are not interested in the easing of international tensions and to expose their subversive activities, at the same time taking the necessary measures for the further strengthening of the defensive capacity of our socialist government.

In the continual improvement of the vigilance of the personnel of the army and navy—the pledge of the further strengthening of the might of the Soviet armed forces—is the trustworthy guarantee of the peace and security of our homeland.

Motorized artillerymen roll by the reviewing stand under a cloud of "Hound" helicopters during the 1956 Moscow air show



Meaningful Case Histories in

UNDERSTANDING

Touchstone of Leadership

COLONEL JAMES E. MRAZEK

A KIND or stirring word or act which springs from human understanding drives men to heroism. Human understanding, says General Maxwell D. Taylor, the Army's Chief of Staff, is one of three virtues that distinguish a true military leader. Despite its importance in leadership, few know this sterling quality of character and its ingredients, and fewer yet really master and use it. It is more easily seen or received than described or performed. Yet in future war its recognition and use will be essential.

The complexion of war changes rapidly. The threat of nuclear destruction compounds the battlefield. To minimize the effectiveness of the enemy's atomic strike, self-contained combat units will defend larger areas. Distances between our fighting units will be greater. Organizations will have high mobility and flexibility. Forces will be shifted rapidly to avoid enemy weapons or to exploit our own. The battlefield, amorphous and confused, will seethe with enemy and friendly units intermingled and locked in combat. Communications may be able to bridge the gaps between senior and subordinate commanders, but more probably the latter will find themselves singularly alone. Imaginations will be taxed to realize the utmost from human and material resources. Commanders will strive to use every leadership artifice to maintain cohesion, fighting effectiveness and élan. Human understanding, one of the resources at the immediate beck and call of the commander, will play an enhanced role, and for this reason it should be thoroughly understood and cultivated.

What is human understanding? It has a unique

meaning for the army officer. It is two things. First, it means knowing the souls of men, their loves, hopes, fears—and yes, their foibles. But it means more. It is not a passive thing, a group of knowable facts to set aside. Human understanding must be active. It is used as a psychological instrument with which a leader creates an urge in men to strive to the heroic deed at the vital time.

Rather than attempt to describe human understanding in the technical terms of the psychologist, a few actual incidents selected at random from the lore of two wars should serve to illustrate its bedrock qualities.

One of these is a stirring example set by General Clarence R. Huebner when a drive of his 1st Infantry Division, then in its sixth campaign, ground to a standstill in a sea of mud and despair.

The front in Germany shook with the fury of battle. The division was having its troubles, inching forward through densely wooded hills, cold rain, oozing mud, against a cleverly concealed, tenacious foe backed by overwhelming artillery. Two thousand men had fallen in a few days, the cream of the division. The morning attack, which never gained any momentum, was bogged down, the ranks thinned and exhausted.

General Huebner had followed the battle with mixed feelings of determination and anxiety. He had tried everything, but nothing worked. Higher head-quarters said the outcome of the war hinged on his attack. There was no alternative but to attack and succeed. He trudged to the front-line foxholes to see the situation for himself.

Threading his way through an area under heavy fire, he reached the remnants of two battalions stalled short of a ridge leading to the division's objective. Studying the ridge bristling with enemy, he realized it was the key terrain to be seized if the attack was to be successful.

He gazed into the distance for a few minutes, apparently unaware of or indifferent to the heavy enemy fire falling on all sides. Speaking to several men who were digging in, his voice hardly audible above the din of fire, he pointed off to the left flank.

"Do you see those men over there?"

The men gazed, blinked their weary eyes. They saw no one. "No, sir," they replied.

The General said, "Look again; there are thousands of men over there."

By this time the soldiers and others nearby dropped their shovels to strain their necks. Bewildered, they looked again. Seeing nothing, one of them mumbled, "The Old Man is off his rocker."

With tears of emotion in his eyes the General continued, "There are thousands of men over there. They are the ghosts of the 1st Division of both World Wars. They are watching us and pleading with us to guard their fame. They fell at Soissons and Cantigny, Oran and Kasserine Pass, Sicily and Omaha Beach. They are a part of us. We have to take that hill; we owe it to them."

His words spread like wildfire. Spirits rekindled. New life entered into the troops. The stalled battalions attacked anew and swept over the ridge and on to the division's objective. The entire division surged ahead.

THE 1st Division did not have a monopoly on this kind of leadership. Here is another story that occurred in the South Pacific, and is related by a young captain, a member of the 38th Division. He likes to tell it this way:

"The Japanese jumped up from the kunai grass. His bullet got me through the chest, dead center. Luckily Oscar, my good Filipino friend, and Captain Brown, commander of Company H, returned the bullet with interest.

"During conscious moments the next few days my thoughts wandered to home, the folks, and no more sleeping on the ground. When I became fairly sure that I wouldn't become another war statistic, the picture grew rosier daily. The clean sheets, soft mattresses, friendly medics and good food convinced me that I'd had enough of the war. This was the second time the Nips had almost got me.

"Then I got the note from Division. Jotted across the back of a general order, it read: 'The Division is doing very well—everybody is hunting Japs for all they're worth. Was very sorry to hear of your wound. Hurry up and get well, we need you back back here. CHASE, Maj. Gen.'

"Not much of a note-said hardly anything. But to me,

Colonel James E. Mrazek, Infantry, was a glider battalion commander during World War II. In 1949-50 he served on the staff of the Army Attaché in Prague and subsequently on the Department of the Army General Staff. He is a graduate of the U.S. Military Academy, the Command and General Staff College, and Georgetown University, where he earned an M.A. in International Relations. He is now on the staff of the Command and General Staff College.

it meant more than a ten-page letter from home, because if there ever was a busy man, it was General [William C.] Chase at that moment. His scattered forces were slugging it out with the Japanese. I began thinking of the man's kindness, thoughtfulness, and humility which caused him to take time out to write a note to a lowly captain probably lost to the division anyway, and I took stock of my sense of values.

"Three weeks later, I was safely back in my old outfit, AWOL from the hospital, true, but with the hospital and my dreams of quitting eight hundred miles away. And, besides, if I'd recuperated in the States my next commander might not have been a General Chase."

Human understanding often finds expression in the concern a commander displays for the welfare of his troops. A slight gesture, a possible show of humility in the face of great odds, will go farther to create respect and admiration for the leader than the rigid discipline, the saluting and all the other trappings that are part and parcel of our Army to assure the authority and support of our commanders. What I am saying is that we should not overlook the latter, but we can learn how handsomely human understanding will pay the commander, if recognized and applied.

Here is an example in no less eminent a soldier than

General Matthew B. Ridgway.

On an inspection tour of front-line infantry in Korea, General Ridgway noticed a soldier carrying a load of ammunition, struggling up the path in the opposite direction. The weather was cold, the ground slippery. The soldier's arms were loaded with ammunition. General Ridgway stepped off the path into the boot-deep mud to give the soldier the right of way. As the man passed he noticed that one of the soldier's bootlaces was untied. The General tied the bootlace for the soldier with the remark, "It would be easy for someone, particularly with arms full, to trip and injure himself on a loose bootlace."

A sincere, unselfish, human gesture. General Ridgway lost no dignity but rose in the respect and admiration of those who saw him perform this simple helpful act.

This is not unusual. Here is a similar occurrence from World War II.

It was an early morning of the cold winter of 1944-45. The fight for the bridge had been costly. An engineer platoon worked in the snow and mud on the road to the bridge. All were fatigued and covered with frozen mud, work was slow and tedious.

A jeep pulled up and a large, impressive man swung out and approached. The sergeant in charge pulled himself from the mud, slid, dogtrotted forward and saluted. The big man returned the salute and studied the sergeant and his crew with a keen eye.

"Where are your overshoes?" he asked. "I gave them to one of my men, sir."

"Where is he?"

"They evacuated him last night, sir," replied the sergeant.

By this time the entire platoon had stopped work and watched their sergeant. Everyone expected the worst. The big man bent down, stars gleamed through the mist. It was the army commander. He fumbled at the buckles, removed his own overshoes, and handed them to the sergeant. The big man's eyes sparkled.

"Here-you need these more than I do."

With this, the army commander turned and walked to his jeep, mounted and rode off.

No man in the platoon ever forgot this.

MUMAN understanding may reveal a sense of humor. Major General John W. Leonard, then a division commander, always seemed to show up at the right place and time. On this particular afternoon more than occasional rounds of artillery and mortar fire poured in, and small-arms fire sputtered; yet, he walked around straight and erect and seemingly completely unconcerned. In contrast, the commander of the front-line unit being visited, having spent most of the past three days under almost constant shelling, was having a difficult time maintaining the same debonair attitude. Suddenly a shell burst nearby, fragments twanged and, reacting involuntarily, the company commander hit the ground. A few seconds later he looked up dismayed, to see his General still calmly erect. The General smiled at the chagrin stamped on his face.

"Don't let it bother you, son. I only have to do this about twenty minutes at a time, and besides that, your men would have thought you were a blankety-blank idiot if you hadn't hit the ground. There's a right time and

place for real courage."

A device used by Major General Joseph P. Cleland proved especially effective. He personally wrote a friendly and reassuring letter to the wife of each of his staff officers and commanders, and also to the wives of as many enlisted men as time permitted, telling each that her husband was well and doing a fine job. To allay the initial apprehension a wife would feel before opening the letter, he wrote in a bold hand on each envelope: "Good News." Here was real sympathy and understanding, no less admirable for being addressed deliberately to a calculated end. Who can weigh the dividends in loyalty, affection, and high morale that accrued to that division from his thoughtful act? Who can weigh the benefits to his own soul?

ACTS of this kind are not confined to our leaders overseas. One particularly worthy one occurred in the Pentagon. General of the Army Omar N. Bradley together with General Collins and General Vandenberg walked down a corridor. Each carried a ponderous black briefing book with the day's agenda and reams of other papers. As they approached the conference room a frightened soldier carrying a stack of Pentagon telephone directories hastily backed

into a corner, awed by the stars. In his haste he dropped about a dozen of the books at the feet of General Bradley.

The General's reaction was automatic. "Hold this for a moment, will you, Joe," and he handed his briefing book to General Collins. Bending down he picked up the telephone directories, placed them on top of those the soldier was carrying, and turned to an aide standing nearby. "Would you mind helping this young man? He obviously has too many books to handle. I'd help him, but the conference is already started."

HUMAN understanding is not confined to general officers. I would like to cite one last example of how a young American major understood his men.

It happened in one of those small French towns in the path of the St. Lô breakthrough. The Major was young and popular. His outfit was held up just short of St. Lô by stubborn resistance. To instill a "Let's go!" spirit, he

called to his men as he went by, "I'll see you in St. Lô!"

Leading his troops, he fell mortally wounded at the edge of the town. Remembering, his men gently shouldered his body, carried it to a monument in the center of the town square, resting it there so that all who passed by could see that he had kept his promise to "see them in St. Lô." A town monument at this spot now commemorates the young major who inspired his men by the human touch.

I like to feel that despite all our material superiority, all the weight of our economic might, and the strength of democracy fighting in the cause in which it believes, this gift of human understanding in the character of many of our leaders, high or low, is what has really carried us successfully through our wars. It has taken us through burning deserts and steaming jungles; breached the Channel forts and the Normandy hedgerows, stopped the German drive in the Battle of the Bulge, and finally breached the Siegfried Line, which Hitler boasted would never fall. It has taken the farm boy from Iowa, the coal miner from Pennsylvania, the clerk from Brooklyn, all raised to peaceful pursuits; it has forged them into soldiers and driven them to unpredicted deeds. Largely this is because they have been led by men who were from the farms and cities themselves, who knew and understood these boys.

It behooves us all to bring ourselves closer to our brother in arms so that we know him as we know ourselves, so that by human understanding we can win respect and admiration and spur him to do his very best.



From The Compact History of the U. S. Army

ATOMICS IS FOR COMMANDERS

It is cheaper, easier and more important to teach experienced field commanders the capabilities of atomic weapons than it is to educate special-weapons staff officers in tactics and command

COLONEL THEODORE C. MATAXIS

N ten years we have passed from a time of atomic scarcity to a time of atomic plenty. Today we have atomic shells for even the conventional 8-inch howitzer. The primacy of the proponents of "more bang for the buck via strategic air power" is now being challenged by the advocates of the concept of using weapons tailored for the job. This concept envisions smaller tactical weapons in the hands of the informed commander who will actually utilize them only as needed to accomplish his mission. This capability for use of small-yield weapons intensifies the need at all levels for informed officers who are able to skillfully employ atomic weapons.

As in all controversies there exists a wide divergence of views ranging from massive assault and retaliation via strategic air power through the convictions of those idealists who feel that nuclear weapons will fall by common consent into the category of gas in World War II and not be used. Certainly, the strategic bombing concept of a mutual Götterdämmerung becomes more and more ill-advised and unreasonable in direct ratio to enemy advances in these fields. As in all major controversies there is a middle road in which, perhaps, lies the answer. Between these two extremes, mutual annihiliation, by the trading of city for city and the rather idealistic hope that an enemy will reject the use of weapons for humanitarian considerations lies the most probable course of future warfare.

A recent statement by Thomas E. Murray, one of the

Colonel Theodore C. Mataxis, Infantry, was commissioned from the University of Washington ROTC in 1940, and commanded an infantry battalion in ETO during the Second World War. In 1950 he was an exchange student at the Indian Defence Services College at Wellington, South India. He served as a military observer on the UN Cease Fire Commission in Kashmir, and then went to Korea where he was executive and CO of the 17th Infantry (7th Division). Colonel Mataxis is now Chief of Publications and Visual Aids, The Infantry School.





Commissioners of the Atomic Energy Commission, succinctly outlines the views of one who is eminently well qualified to speak on the best future use of atomic weapons. He said: "I am altogether opposed to any school of thought that would move on toward weapons of ever increasing magnitude, while at the same time disclaiming the intention of using them. This position is unrealistic. Under the stress of a threat to its survival a nation will use any weapon it has on hand, however recklessly, if there is any seeming advantage. I would add that when a full military theory with regard to a moderate and discriminating use of nuclear weapons has been evolved in the light of moral principle, the conclusion might be that the bombs we presently have are already far too large."

It is essential that our tactical doctrine develop to accommodate this concept. One of the major difficulties faced by those endeavoring to develop new doctrine and tactics is the lack of historical examples or experiences of contemporaries from which to draw broadly valid conclusions. Much has been written about the changes the use of atomic weapons will force on current tactical doctrine. Much more will be written in the future before the concept of ground force operations on a two-sided atomic battlefield will be stabilized. And even then we will not be certain that the theories and doctrine evolved are correct until they are tested by the final arbiter of new tactical theories and doctrine: actual combat.

History has no atomic weapons 'experience factor'

Most changes in the past have been slow and evolutionary—indications of future trends were clear for those searching for indications which would point out trends and changes in doctrine needed for a future war. Military history and operational reports aided the military researcher in ascertaining the principles successfully employed in past campaigns and battles. The vast source of military history, the concentrated combat experience of others, has now become a rather weak reed to lean on because as yet we have no examples of the tactical use of this weapon.

While it is agreed that the basic operational principles have not changed, a near-revolutionary change has occurred in their application. The trend of thought relative to the tactical use of nuclear weapons is even now easy to discern. While it is visualized that the elements of ground combat will still remain fire and maneuver, the impact of the tremendous fire power of nuclear weapons dictates a need for vastly increased flexibility in all units. In the ability to disperse widely, thus minimizing the effect of any enemy nuclear strike while yet retaining the ability to mass relatively large elements quickly at a critical point, lies the key to successful combat on the atomic battlefield. The use of tactical atomic weapons, for example, points up the

much greater dependence of maneuver on fire power at lower-unit levels, especially since atomic weapons have in fact become the corps commander's primary

fire-support means.

Consequently, when applying the principle of mass, the usual equating of mass to the numbers of troops and the fire support of conventional artillery weapons alone must be avoided. The massing of troops and artillery for an attack as was done in World War II and Korea would be disastrous on an atomic battlefield. Field Manual 100-5 states that "mass is essentially a combination of manpower and fire power." While the best ratio between conventional fire power and manpower for an attack can be answered by most combat leaders who fought in the recent wars, when using atomic weapons as fire support, the proper ratio of "fire support" to troops becomes a relatively uncertain and imponderable factor. We have no experience factor to fall back on.

It is here that an analysis of the effects of nuclear weapons must be made and a hypothetical frame of reference-or synthetic "experience table"-must be evolved for reference when utilizing these weapons. We must come up with sound ideas and theories to bridge this void that currently exists in our military knowledge. Mahan's The Influence of Sea Power Upon History, 1660-1783 points out that the time lag between the introduction of a new weapon and its integration into tactics is always much too long. Mahan indicates that this is undoubtedly caused by the fact that the technological improvement of weapons has its origin in the skill of a relatively few individuals, while the tendency to resist change on the part of the group is overcome but slowly. Consequently, few new weapons are effectively exploited. Unfortunately, it is human nature for a group to cling to the customary way of doing things.

Such opposition to change is typified by the following example of a report to the Privy Council in England in the late sixteenth century: "The bow is a simple weapon, while firearms are very complicated things which get out of order in many ways. . . . They are heavy weapons that tire out soldiers on the march. Also a bowman can let off six aimed shots a minute while a musketeer can discharge but one in two minutes."

This example may be extreme, but it is not unique. Officers have been understandably slow to discard proven methods for untested theoretical concepts when it meant the lives of their soldiers and of their nation would be risked on the battlefield on the strength of an untried theory. Today, however, the greatest risk lies not with the dangers that new changes and ideas might bring, but in the danger of not preparing ourselves for warfare in the new era that nuclear weapons has thrust upon us. Our gravest danger today is complacency. The knowledge that we developed the atomic weapon nourishes a belief that we are therefore best qualified to develop doctrine to exploit its use. This type of thinking is fallacious, and we need not search

too far back in history to find an example of its dan-

In 1916 the British Army developed the tank and demonstrated its effectiveness during the Battle of Cambrai. However, after 1918 the French and British rested on their laurels as the victors of the war. As a result, the Franco-British military doctrine on the use of tanks remained at the World War I level. True, during that period certain outstanding military men, typified by General Fuller, saw the implication of the integration of the tank into the army. These were isolated individuals, however, whose precepts died on the lecture platforms of military schools or in the pages of the military journals. The inertia of the proponents of the existing system and their resistance to change was too great to overcome. It remained for the Germans to correctly assess the value of the new weapon and to act vigorously to develop new doctrines and techniques and to indoctrinate their whole army with its use. During this period the Germans examined the operations of World War I with an analytical and critical view. They correctly analyzed the potential significance of the two new technological developments of World War I-the tank and the airplane-on current military doctrine.

As a result the Germans first developed new theories and then tested them in war games and maneuvers. From this they evolved their *Blitzkrieg* concept and equipped their armies with the *panzer* divisions and the dive bombers needed to make this new concept a reality. In this case the danger of not keeping abreast of the evolution of new weapons and tactics was vividly signalled by the decisive defeat of the Franco-British

forces in the Battle of France in 1940.

The penalty of lip service and the status quo

The rate of technological progress from the steam engine through the Industrial Revolution will seem like a tortoise's pace compared to the technological advances and breakthroughs we have seen and will see in the next decade. It remains up to each of us to insure that we continually reevaluate our tactics, organization and doctrine in the light of new technological advances.

Unfortunately, in many instances the development of the doctrine and of techniques for the tactical employment of atomic weapons has been hampered by human inertia and adherence to the *status quo*. In too many instances lip service only has been paid to the integration of atomic weapons into our field exercises and problems. It seems almost axiomatic that among senior staff officers and commanders who have not received a special orientation course in nuclear weapons, the interest in, and understanding of, the capabilities of nuclear weapons vary inversely with their length of service. As a result, in tactical exercises or in maneuvers relatively junior officers make decisions that are proper-

ly the responsibility of the most senior staff officer or the commander. It is imperative that all officers obtain a basic knowledge concerning the use of nuclear weapons on the battlefield of the future if they and their troops are to survive to carry out their mission.

Specialists are advisors, not commanders

Commanders cannot afford to relegate the decisions relative to the use of atomic weapons to a junior staff officer, even though he is specially trained. If we are to make progress in the doctrine of the tactical use of atomic weapons we must insure that the know-how and the fund of knowledge gained by our army during combat in World War II and Korea effectively supplement the power of atomic weapons by indoctrinating and educating all our officers in the capabilities and limitations of atomic weapons when used tactically in support of ground forces. It is more important-and much easier-to teach the capabilities of atomic weapons to an experienced field commander than it is to educate a young special-weapons staff officer in the intricacies of tactics and command which must be learned by years of schooling, command, and practice in the field.

This does not mean that all officers must become mathematicians or physicists. A knowledge of the capabilities and limitations of supporting artillery, for example, doesn't go into the tensile strength of the steel of the projectile or the chemical composition of the propellant. These things are properly left to the ordnance specialist. There are, however, a few details which all officers of combat arms should know concerning nuclear weapons. These are so vital and yet so simple that every officer can and should take immediate steps to become familiar with them by studying on his own, in the event he hasn't been able to attend a school or an orientation course covering these subjects. To be an effective combat-arms officer in our army today one should have, at a minimum, a basic knowledge of:

The physical effects of atomic weapons—thermal, blast and radiation;

¶ The delivery capabilities available to the field army—both current and projected;

A concept of tactical employment of atomic weapons;
The changes in current tactics caused by adoption

of tactical atomic weapons.

The basic information is readily available

Many excellent texts exist from which one can obtain information covering the effects of atomic weapons—such as blast, thermal and radiation. One of the best is Department of the Army Pamphlet 20-112 (Individual Training in Atomic Warfare). This pamphlet

and references listed in its Appendix II include sufficient information to establish a firm basis for the understanding of the primary effects of an atomic-weapons explosion.

The delivery capabilities and the concept of employment are covered in DA Pamphlet 39-1 (The Tactical Use of Atomic Weapons: Unclassified Military Effects) and Training Circular 33 (Combined Arms Units in Atomic Warfare). These pamphlets give a firm foundation for further study into staff procedures and concepts of employment which are available in much more detail in classified manuals. However, used in conjunction with FM 100-5 and other current branch manuals, they represent the very minimum knowledge of nuclear weapons which should be possessed by all officers of our Army. Mere knowledge in itself, however, is not enough. All commanders should insure that if an atomic war comes tomorrow, they and their troops will be ready to utilize our available delivery means and weapons to the best advantage and to protect themselves effectively against retaliation. In order to accomplish this the play of tactical atomic weapons should be inserted into all field problems and CPXs and a continuing program should be expedited to train all troops to accept tactical support of atomic weapons.

Officers interested in venturing farther afield and following the development of the tactics and techniques of atomic warfare can gain an insight into theories in our service journals. Two excellent books, *Atomic Weapons in Land Combat* (Reinhardt and Kintner) and *Atomic Weapons and Armies* (Miksche) present two interesting and contrasting viewpoints.

Nothing is fixed, not even ossification of mind

We must insure that we continue to evaluate our tactics, organization, and concepts in view of the light of experience and constant technological advances. And above all, that we retain the mental flexibility to rapidly adapt to changes as needed. General Fuller, in a period of despair after his advanced theories on armored warfare were rejected by the British high command in favor of muddling through with World War I concepts wrote these memorable words:

"Plasticity of mind cannot be cultivated during a war except by an occasional genius. The generality of soldiers simply cannot change if they are dogma-ridden. The only way to prevent their ossification of mind is to accept nothing as fixed, to realize that the circumstances of war are ever-changing, and that consequently organization, administration, strategy and tactics must change also, and if during peace time we cannot change them in fact, we can nevertheless change them in theory, and so be mentally prepared when circumstances require that changes be made. Adherence to dogmas has destroyed more armies and lost more battles and lives than any other cause in war."



His critics constantly agitate for his elimination (but not the elimination of the specialized work he does). He himself knows that he "has it made"

(and the very knowledge gives him a feeling of guilt). Few will admit that he is growing more numerous and indispensable (as he is). This paradox is the

HEADQUARTERS SOLDIER

CAPTAIN ROGER W. LITTLE

LINE up the men of a headquarters company and you have a small picture of the whole Army. Among them will be the specialists with high prestige, and the general duty soldiers of the "bull gang." They must be seen together because only the contrast marks the real headquarters man. He is one who works in a staff section or a specialist unit. His skills are highly valued, and his judgment influences the decisions of men of power: the staff officers and the commander of the

headquarters. Yet his position is more vulnerable than that of his headquarters brother in the bull gang, or the rifleman. For if he should fail, he would quickly become one of them.

Headquarters men are an elite. More often than not, they have something that is lacked by men of the line: specialized skills, more years of formal education, more time in the outfit, or least frequently, just "the breaks." Whatever it is that makes them so, they are more cosmopolitan than men

of the line. They put more emphasis on tangible facts, are skeptical of symbols, rituals, and traditions. They are least likely to erect a "through-these-portals-pass . . ." sign.

But they are also "marginal men." Their place in the system is to work unseen, or if seen, to make themselves scarce. They must take on the image of the commander in whose headquarters they work. They are a part of his "command personality." However diverse their skills and activities, they



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seldom see a task completed. Unlike the rifleman or the gunner whose activity directly influences the enemy, the headquarters man only *helps* in the management of the battle.

The "ideal standard" in military organization is the image of the combat soldier. This is the picture to which all soldiers and commanders are expected to conform, even though it is realistic for only a small proportion of them. But the combat soldier is produced by one set of conditions, headquarters men by another. To the degree that those conditions are not present, the image of the combat soldier appears artificial and pretentious. Headquarters men have the greatest difficulty in behaving like something that they are not. This has nothing to do with their ability or motivation to fight in a combat emergency.

The number of headquarters men is increasing rapidly these days. The growth is comparable to that recorded in civilian life. The greatest increase in any occupational group in the period from 1940 to 1950 according to the U.S. Census, was in the category of "clerical and kindred workers." Hardly a business exists that has not vastly expanded its staff sections: they are recognized as necessary to run the business. They have better working conditions, a stable salary, a greater degree of respect in their "white collar" associations. These are the headquarters men of civilian life.

And in military organizations, staff sections have grown correspondingly. But not without protest. Their mere number makes commanders guilty, fearful of the development of a "chairborne army." Yet the prestige of the staff section continues to increase: it is the place that officers and men most want to move to. As the Army becomes more complicated in organization, more men are required

at every joint to make it work. Nothing can be bigger without requiring more managers—and every manager needs a staff. Headquarters men are here to stay—and to increase.

Headquarters men have a life of their own, and one way to study it is to construct a "social profile." We can better understand their behavior if we consider the pressures under which they work, the significant persons who produce those pressures, and typical

patterns of behavior under such conditions. A social profile will not enable us to predict just how every head-quarters man will behave—any more than a psychological test would. But it will furnish a background in which we can expect headquarters men to react. If we can see the world through their eyes, their behavior is more likely to make sense.

The Way Up to Headquarters

There are three ways of becoming a headquarters man, and the way is important because it influences the kind of attitudes that the headquarters man will have toward his job.

The first is to be an old timer. The longer a man is in the Army, the more likely he is to end up in a headquarters staff section or bull gang. If he goes to a staff section, it is because he has acquired a vast stock of experience and knowledge of military organization. He knows his way around, can quote regulations by the mouthful, and has contacts throughout the outfit or post. Through these contacts he can get things done for which there are no channels, or pick up information that often by-passes the Old Man.

There is another kind of old timer who goes to headquarters company but remains in the bull gang. He is often a man who has been displaced by technological changes. He has skills which can no longer be used, or is a man for whom "a place must be found." The rigors of life on the line are too much for him, and a headquarters assignment is considered a just reward. But all old timers have one thing in common: they are confident that they can out-soldier any man on the line. And many of them can.

A second way of becoming a headquarters man is to be selected from a

line company. Usually the selection originates in the personnel section when a vacancy occurs and a scarce skill is desired. The man selected is most likely to be exceptionally qualified by aptitude score, educational background, or service school attendance. (Men rarely apply for transfer to headquarters company; those who do are suspected of sinister motives.) The process of selection is a powerful factor in making headquarters men an elite. For they are, indeed, picked men. Their line company experience is rarely an influence in their subsequent behavior, except to make them value their headquarters assignment more highly.

The third way is to be selected from the replacement stream. These men never reach the line companies. Their military experience begins and ends as headquarters men. Yet they are more likely to become enthusiastic soldiers than the second group: the men who have moved up from line companies. They accept the legends of the outfit more readily, identify strongly with the traditions of the organization, and never quite overcome a paralyzing fear that the Old Man is a super-human character in the headquarters drama.

Three Very Important Persons

The life of headquarters men is influenced by three very important persons: the Old Man, the Chief, and the Boss. Unlike men of the line, they must deal, with a multiple hierarchy of command. Instead of one person to whom they must report, the headquarters man has three.

The Old Man—the commander of the headquarters in which they work —comes first. To men of the line, the Old Man has certain mystical qualities; he is always seen in a ceremonial role, at inspections or parades. But the

headquarters man sees him as a real person: they know of all his eccentricities. His every act is a conversational topic at mess or coffee break. His morning "mood" is circulated through the headquarters like a weather report. If he meets them on the job, his words are searched for hidden meanings. The headquarters men know him as a powerful person, and recognize the deference required to keep things moving without a flap.

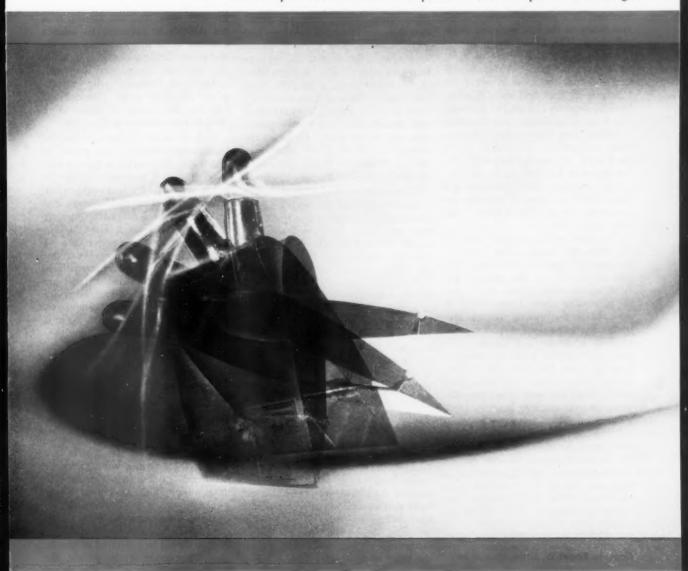
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person is the Chief-the officer in whose staff section the headquarters man works. They know him like a clockand whether they like him or not, he likes them or he wouldn't have them around. They are generally closer to the Chief than enlisted men ever get to officers. Their relationship is much like that of a platoon leader and his men when on the line, with one major difference. The Chief never has to make demands that involve great risks, so there is less chance that their friendship will hurt the oufit. Whether the headquarters man and the Chief are buddies depends less on the fact that one is an enlisted man and the other an officer, than whether they like each other as persons. The Chief has a good stock of rewards with which he can maintain his place in the section: he can influence their promotions, get them off KP, or sidetrack a sinister delinquency report. The Chief is the man to stay close to.

The third most important person is the Boss-the headquarters company commander (and his first sergeant). His major task, in the eyes of the headquarters man, appears to be one of preventing them from "living it up." He sets the rules for barracks life, makes the inspections, improvises the training schedule, and hassles daily with staff officers about his men of their sections. His command is limited to off-duty hours. When a good job is done, the staff officer gets the glory, but a crummy barracks or a soiled uniform is the sole responsibility of the Boss. When promotions are possible, he makes up the list-from the recommendations of staff officers and the adjutant. And when the stripes are sewed on, it's the Chief who gets the thanks. The Boss represents the Army; he is there to make soldiers of

Captain Roger W. Little, Medical Service Corps, is a sociologist as well as a soldier. During World War If he was an OCS graduate who became a battalion communications officer in the 94th Infantry Division. After the war he attended Harvard and the University of Chicago's School of Social Service Administration. He was integrated into the Regular Army in 1951. He served in Korea and is now doing postgraduate work at Walter Reed Army Medical Center. Captain Little has contributed regularly to this magazine.

headquarters men. The bull gang is his honor guard.

'Living it Up' in Headquarters

Headquarters men stand apart. They are more likely to be intellectuals, more skeptical of the symbols of the organization. When they rub shoulders with the Old Man daily, see him in the corridor, hear the staff discuss his decisions, the position loses its mystical qualities. Because they are close to the men who make the rules, they know the way around them when they want to avoid them. As members of staff sections, they have another power that men of the line don't have: the intercession of the Chief when they are in trouble or when promotions are imminent.

Their attitude toward the Old Man is characteristic of the way they regard officers generally. The headquarters man is more likely than the man of the line to have come from a position in society comparable to that of the officer. In education, social background, and intellectual capacity, the headquarters man is often the equal or superior of the officers in headquarters or on the line. In addition, the frequency and intensity of their contacts with all officers removes the sanctity of status. Any person who expects to induce respect must to some extent remain distant.

The fact that staff officers and headquarters men develop such strong friendships, or at least are in positions to do so, is one reason for the frequent complaint of politics in headquarters. It is axiomatic that officers refrain from personal relationships with enlisted men to leave them free to make decisions on objective considerations. When one man is a buddy with an officer and another not, the officer cannot choose one without slighting the other in some way. This is a lesson that line officers learn early because the choices they make are often much more important than who shall be promoted. The Chief is seldom faced with decisions of the same magnitude. But it is much more difficult for him to keep from making buddies with men who are so much like him in many ways, and with whom he works so closely. And this makes for politics in headquarters.

Moreover, the positions that headquarters men occupy often give them an advantage over the officers of the line. They are close to the Old Man and their Chiefs. Throughout the headquarters offices there are reports about this officer or that. Whether the officer knows it or not, a great deal is known about him by headquarters men. Because of the close personal relationships between headquarters men, the Old Man, and the Chiefs, it is not difficult to influence an officer's standing by an idle comment or a sly evaluation. Officers of the line know this and treat headquarters men with a degree of deference quite inappropriate for their rank. Headquarters men can do things for them, more often to their advantage than not.

A final source of prestige for the headquarters men is the extent to which they have access to the "secrets" (non-classified, non-security) of the headquarters. There is always a stock of reports, rumors, and legends that circulate in the headquarters but are not supposed to leave it. The Old Man is concerned about the performance of one unit in relation to another. Alternative plans are discussed, tentatively accepted, then discarded. Officers are shifted from one unit to another for reasons well known in headquarters but never publicly disclosed. Now if headquarters men spilled all that they knew, chaos would result. The importance of keeping secrets is that only trusted men are given access to them. Being entrusted with secrets that many officers are not permitted to know inevitably raises the stock of headquarters men.

But the other side of living it up is that they are on the outside, not only in the activities but also in the sentiments of the organization. Although their skills are crucial to the success of the mission, when the excitement of battle or the garrison flap has passed, they are regarded as the fat that should be converted to muscle. In the inspection or the parade, the headquarters man is usually passed with a smile of condescension. They comprise a rout step outfit, it is often said, with neither the precision nor the masculinity of men of the line.

They can lose their privileged spots with remarkable speed, a threat that is constantly in front of headquarters men. When one fails, he is bounced to a less favorable position. Even within the headquarters company, he may be moved to the bull gang to perform the routine, unspecialized activities of keeping house. If the bull gang is full,



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or the failure is more notorious, he is moved to the line—there are always vacancies there.

In this respect, the men of the line have it made. They can move no farther down the line. The skills in which they develop excellence have a solid place in the outfit.

"Having it knocked" unhappily and guiltily

Headquarters men know that they have it knocked, but they're not exactly happy about the kind of life they live when they hear what it's like on the line. They'd rather have it their way for everyone. They have more guilt about living it up than is generally recognized by men of the line.

But while they will admit that they have it easier in headquarters, they resent efforts to make their lives uncomfortable just because they are men of distinction. Attempts to make them do double duty are resisted by all of the tricks that they can design. They withdraw from purely military activities and cultivate their uniqueness. This reaction sets them farther apart from other members of the organization, and fosters additional efforts to make them conform to the image of the combat soldier. The battle usually settles down to a cold war, with a persistent tension between headquarters men and those who resent their privileged positions.

What can be done for the headquarters man?

First, his position could be made secure by frankly admitting that men of his kind are essential to the success of the mission, not a luxurious appendage to be sloughed off when spaces are under attack. Who is fooled when staff positions are eliminated and the men who fill the positions stay at their desks on temporary duty or detached service? What business executive would be ashamed to count the specialists he uses to help him run the business?

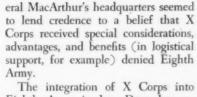
Secondly, their differences must be accepted as the cost of their skills. The headquarters man is not necessarily a less effective soldier because his uniform is less sharp, his drill less precise, and his attitude toward discipline and tradition one of skepticism and indifference. He is one kind of soldier (and there are many kinds). If his skills are worth having in the headquarters, his differences are only a small price to pay for what he contributes toward getting the job done.

MacArthur's Divided Command

(Continued from Page 44)

seemed like an equitable arrangement, X Corps required different treatment. General Almond had obtained Mac-Arthur's approval to build his stocks up to a thirty-day level, and he requisitioned on this basis. Believing that X Corps was maintaining supply levels that were too high in comparison with those of I and IX Corps, Eighth Army attempted to keep X Corps stock levels to what the army considered reasonable by editing X Corps requisitions downward. X Corps logistical officers protested vigorously, citing this not only as an infringement of their right but also as an example of Eighth Army favoritism toward its own units.

For their part, some Eighth Army officers resented the existence of a separate corps in a way they would not have regarded another field army. Furthermore, that General Almond, X Corps commander, was at the same time MacArthur's second in command and Chief of Staff was sometimes embarrassing. To Eighth Army officers it appeared that certain staff members of X Corps took advantage of General Almond's retention of his several positions. A X Corps administrative order dispatched directly to a quartermaster depot under Eighth Army control, which happened at least once, was a violation of the chain of command if the order came from the corps commander, but was perfectly normal if issued by General MacArthur's Deputy Commander and Chief of Staff. The fact that X Corps headquarters had been staffed by personnel from Gen-



The integration of X Corps into Eighth Army in late December removed the conditions that had caused friction and stirred controversy. General Walker, who had consistently recommended the establishment of a single ground commander in the field, was not to have the opportunity of exercising such control. His tragic death in an automobile accident late in December preceded the assignment of X Corps to the Eighth Army.

Although friction between commands is often merely the result of personality conflicts between staff members, in retrospect it appears that the hostility between personnel of the two commands was a symptom of a more profound malady-the ground command arrangement in Korea. At least one Army field manual seems to support this view. The definition of unity of command in 1949 speaks of the necessity of "full cooperation between elements of the command." (FM 100-5, August 1949.) By 1954 the definition had become the "willing and intelligent cooperation among all elements of the forces involved." (FM 100-5, September 1954.) A slight change, perhaps, but a significant one in the light of the Korean experience.

HETHER a unity of ground com-Wmand exercised by a commander in Korea was feasible during the period considered and whether a unity of command exercised by Walker rather than by MacArthur would have had better results are questions that cannot be answered by a simple yes or no. Korea and the conflict there challenged the imagination for satisfactory solutions of difficult military problems. Whether General MacArthur's ground command arrangements were the best that could have been effected remains a subject for reflection and discussion. If limited warfare occurs again in a similarly remote and primitive part of the world, many of the conditions that shaped the command arrangements in Korea may again pose their challenge to those who must apply the principles of war.



The Flying Ba

FAIRFAX DOWNEY

It came down in history as "A little more grape, Captain Bragg,"
but Old Rough and Ready didn't talk that way and the better
evidence is that he spurred on the flying batteries with "Double
shot your guns and give 'em hell!" And that was but a reflection
of the spirit of U. S. artillery in every war since 1846

N 1845 it took Captain Samuel Ringgold's battery of the 3d Artillery forty-six days to sail from Fort McHenry in Baltimore to Corpus Christi, Texas. From there it marched the next year into the war with Mexico. The "flying batteries" considered themselves a corps d'élite and were determined to prove it in combat. Along their sky-blue breeches they wore their stripes of Artillery red with a swagger-stripes which gave them the nickname of Redlegs as their vehicles would later see them dubbed Wagon Soldiers. Spectators admired their mounted drill, exacting Captain Braxton Bragg's particularly, as a thing of beauty. However battered and powder-grimed they emerged from battle, the batteries of the 3d Artillery galloped into action next time -uniforms smart, guns, caissons, harness and the hides of horses clean and shining. These four light batteries, with their train, were far from sufficient artillery for the missions they would be called upon to accomplish, but by their splendid service they would fulfill them to the hilt.

Palo Alto (the Place of the Tall Timber) on 8 May 1846 resounded to the stirring beat of the Long Roll. Ox teams hauled two 18-pounders into line, followed by ammunition-laden white-topped Conestogas. Shouts of teamsters urging on the big, patient beasts struck Lieutenant Samuel G. French as highly unmilitary. The oxen were slow and lumbering; elephants, he reflected, would have been as fast and as picturesque. The light batteries sped past the ox teams at a trot, then a gallop, to confront the Mexican array, advancing with loud Vivas and thumping bands. An American gun piled up in a heap, caught by a shell that pierced the lead pair and exploded, but other sections and batteries hurried forward to unlimber and open. Ringgold and James Duncan delivered cannonades that smothered the opposing artillery.

A wad from one of Duncan's guns set the dry grass blazing. Across the smoke-clouded battlefield charged squadrons of Mexicans, lances leveled, red-and-green pennons whipping in the wind. Some blue-clad infantry regiments formed squares and beat them off with volleys in the best tradition of Wellington's regulars. But none needed



The death of Major Ringgold

to resort to the bayonet, so rapid and well directed was the fire of the flying batteries. Frequently changing position as General Taylor shifted troops behind the smoke screen, guns and howitzers smashed charges from the flank and enfiladed oncoming ranks. The 18s joined in, belching canister at the dark masses of the foe and "driving them like sheep."

Toward sunset the Mexicans withdrew. American victory was conclusive, yet among its costs was brilliant Major Ringgold. Struck by a shell as he sat his charger directing fire, both legs mangled, he would not let his men leave the guns to attend him. A few days later he died of his wounds, the Army's foremost light artillerist lost to it. But there were other able officers who would carry on.

Palo Alto had been primarily an ar-

tteries



From an 1846 steel engraving, Bettman Archive



Behind the infantry storming the heights of Monterrey came the 6- and 12-pound howitzers.

tillery fight. The commanders had "maneuvered their batteries as if they were platoons of cavalry, and fired them almost as if they were pocket pistols." An observant infantry quartermaster, Lieutenant U. S. Grant, made notes on cannon firepower and its effect when massed—notes that would serve him well in the future.

The Mexicans admitted the superiority of the enemy's artillery at Palo Alto, and lamented the havoc it caused. Mowing them down with cannon from a distance seemed an unsportsmanlike and regrettable mode of warfare. They preferred close combat, the shock of arms. The dashing Mexican lancers far outnumbered the American dragoons on most battlefields and, except for their lighter mounts, were highly for-

midable in direct cavalry clashes; but accurate, swiftly delivered cannon-fire often broke up their charges at the start. Their infantry, mostly conscripts, poorly rationed and long unpaid, fought with dogged courage; yet they too had been "killed with impunity and decimated in cold blood" by the Gringo field guns. However, the Mexican artillery, despite faulty powder whose propulsion was so low that ricocheting round shot could be dodged, was not to be discounted, and it would give a good account of itself in battles ahead.

NE day after Palo Alto, combat was joined again. American artillery—Old Zach was using it as an advance guard now—moved down a road

through the woods and chaparral to Resaca de la Palma. From an unseen battery up ahead a shot crashed through the treetops. Such fire would be far deadlier in later days of sensitive fuzes detonated by branches; now it served only as a summons to action.

"At the gallop, ho!" The unlimbered guns dashed onward and opened on smoke spurting up near the banks of a dry river. Manhandled farther forward, they closed the range. As they shot at the cannon smoke, lines of Mexican skirmishers debouched from the chaparral and attacked. The battery of Randolph Ridgely, who had taken over from Ringgold, engaged both enemy infantry and artillery single-handed until its commander was forced to call

for support. At length came the sound of pounding hoofs, and Captain Charles A. May trotted up with a squadron of dragoons in column of fours. The tall, flamboyant cavalryman shouted: "Hello, Ridgely! Where is that battery? I am ordered to charge it."

"Hold on, Charley, until I draw their fire, and you will soon see where they

are," Ridgely called back.

As he blazed away, and the enemy guns flashed in reply, May was off at a mad gallop, long black hair and beard streaming. The dragoons thundered down on the battery, sabering gunners and bringing back a general as prisoner. But most of the squadron overran and were half a mile past before they could turn their hardmouthed horses. Nor were they able to control their mounts even then, but galloped back through the battery to their own lines. Meanwhile, Mexican artillerymen remanned their guns.

May's charge had been more like a runaway. Though he offered the general's sword to Taylor, most authorities agree that the enemy commander's captor was a sergeant or a bugler. Taylor merely glanced at the proffered weapon. Turning to the colonel of the 8th Infantry he snapped: "Take those guns and, by God, keep them!" The regiment promptly did so with the bayonet, while Duncan's guns staved off an attempt at rescue by lancers.

Lieutenant French, coming on the field with a 12-pound howitzer, had ordered "Fire to the front" when a volley emptied two saddles. Driverless pairs tangled, and wheels locked. Unlimbering in the face of an oncoming regiment, French sent a sergeant for canister. Before it arrived a gunner had

Fairfax Downey, Lieutenant Colonel-USAR, retired, an occasional contributor, comes from an Army family and served in the Artillery in both World Wars. He graduated from Yale in 1916 and broke into the newspaper business on papers like the Kansas City Star, the New York Herald Tribune, and the New York Sun. His stories of the Army during the development of the West were published as Indian-Fighting Army (1941), which quickly went out of print and became a collector's item. This article, and "No Artillery Better Served" (September 1955), are chapters in his history of U.S. artillery, to be published this fall by David McKay & Company.

loaded with shell. Canister was rammed down on top of it and touched off. With a roar the howitzer leaped and bucked, both wheels well off the ground, as the murderous charge tore into the enemy's ranks. Two more rounds were enough to break the advancing regiment, but men and horses still were falling under fire from other quarters. Ridgely, coming up with a gun whose lead driver was killed, swung from his mount onto the dead man's saddle, straightened out the team, and brought the piece into action.

More artillery, galloping out ahead of the cheering infantry and virtually charging the enemy, hastened his rout with shell fire. By late afternoon victory was won, many of the fleeing Mexicans being drowned as they sought to escape across the Rio Grande. Taylor, lacking enough fresh troops to pursue, camped on the field.

PON an eminence the old city of Monterrey stood girdled by three forts and strong earthworks, with the Black Fort and the Bishop's Palace as its citadels. Ramparts were defended by thirty-eight cannon and an army of nine thousand. Taylor's decision to storm it struck his West Point officers as downright foolhardy. His force was only two thirds that of the Mexicans and his siege train-two 24-pounders and a 10-inch mortar-woefully weak. In spite of all he asked of his light batteries, he could not expect them to breach stone walls. Says one historian: "His guns were so few and so small that the sight of them sent the regular infantry officers to bed that night with the sober thought that if they wanted an adequate artillery, they must take it from the enemy." However, the General, whose strategy was limited to two precepts-attack and never retreat-issued orders for the assault.

Taylor dispatched martial and energetic General William J. Worth with a column on a wide detour to the south to cut off Monterrey's supply route. Meanwhile, on 20 September 1846, light artillery pounded away futilely at the massive walls of the Black Fort. Next day, while Worth attacked from the south, Taylor's infantry carried lesser works on the northeast and pushed into the city, followed by sections of Bragg's guns. Desperate street fighting ensued.

Daring gun teams pushed into the narrow thoroughfares, no more than alleys, of old Monterrey. Somehow crews 6s and 12-pound howitzers. From roofs and windows enemy snipers dropped men and horses. With a rain of bullets beating down on Lieutenant George H. Thomas's pent-up section, he was ordered to withdraw, but the Civil War's Rock of Chickamauga paused for a parting shot. Then gunners lifted and swung the piece around—the only way it could be done in those confines—and a fresh team was brought up to haul it clear. Hard by, Bragg with

managed to unlimber and open fire.

It was no place for muzzle-loading

other guns of the battery, was taking even severer punishment. Several of his men and more than a dozen horses were down in a street slippery with blood and foam. Bragg, in spite of the enemy fire, insisted that harness be tillery, light batteries outside opened stripped from dead and dying animals,

before the pieces were manhandled

back with the aid of Maryland volun-

A crack artillerist, but a strange man, was Captain Braxton Bragg—"ambitious and of a saturnine disposition and morbid temperament"—a strict disciplinarian, even a martinet—careful to the point of being petty about equipment. Volunteers detested him for an arrogant Regular. They were suspected of slipping under his cot a shell which exploded and riddled his blankets and tent walls, but left him unharmed.

Now he sent Lieutenant French back to salvage the harness from the horses killed, but General Taylor, meeting the lieutenant and inquiring his errand, countermanded the order with a curt "Nonsense!" On another occasion Bragg directed his lieutenant to recover a dead driver's saber; he refused the man's knife which was also brought along—it was not Government

property.

As Bragg's canister broke a lancer charge led by a woman captain in another part of the field, Ridgely took his battery into the fight at a gallop, "his head bowed forward, face to the right, as if it were sleet instead of a hail of lead and iron that tore past him." That gallant artilleryman would not long survive the battle. In spite of expert horsemanship, he was killed soon after the fighting by a fall from his mount.

MORE troops poured into the city. The infantry, drenched by a night rainstorm, rationless for thirty-six hours, fought with incomparable valor. Under heavy musketry and gun fire they



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General Taylor, in the nondescript mufti he liked to wear, was proud of the performance of his artillery at Buena Vista

scaled heights, climbing from rock to rock, and swept over ramparts without benefit of siege artillery. The big mortar, not solidly bedded, dug itself so deeply into the ground on its first recoil that it was long out of action while being excavated. Frustrated heavy artillerymen caught up muskets and joined the assault. They were on hand to man captured enemy cannon—some of them fine British 9- and 12-pounders dated 1842—and trade rounds with the enemy batteries defending the Bishop's Palace.

In the storming of that citadel, Texans raised a battle cry, rising from a low growl to a falsetto scream, that would become famous as the Rebel Yell. Fire spurting from windows and battlements, the fort held out until a howitzer was brought up and battered its main gate. Infantry, rushing forward to attack ranks of Mexicans barring the entrance, were suddenly halted by a shout from the gun crew: "Throw yourself flat!" As they dropped, a double charge of canister roared over them. Like an iron broom it swept the way clear, and the Palace was won.

Street by street, from house to house, the blue-clad troops fought bitterly for the city. They pickaxed holes in soft stone and adobe walls and enlarged the gaps by jamming in 6-inch shells, three-second fuzes sputtering. Chiming in with explosions of that hand arfire on barricades which blocked every

street they entered. With bullets from walled, flat roofs rattling like hailstones on the paving, it was desperate work to unlimber and serve a gun.

YEARS in the future were breech-loading cannon, and farther still the development of gun shields and aprons that would afford crews some protection. Now it took sheer nerve for cannoneers to step out in front of muzzleloaders, ram down powder and shot, stand clear for the discharge, then run back to swab and load again while lead from barricades and housetops spattered around them. Two loaders in French's section were hit as that officer dismounted, his wounded pony tottering under him. He ordered his gun shoved back around a corner under cover. No man to quit, he adopted an unusual expedient: "I now resorted to a device once practiced by a mob in the city of Philadelphia; two long ropes were made fast to the end of the trail, one rope was held by the men above. The gun was now loaded, and leveled in safety, then pushed out, and pulled by the ropes until it pointed at the barricade, and then fired. The recoil sent the gun back, and the rope brought it around the corner to be reloaded. In this manner the gun was worked for two hours, and with all this protection, four out of the five gunners were killed or wounded."

Slowly, grimly, bloodily, infantry

and the guns of T. W. Sherman, Reynolds, Bragg, and the rest cleared the streets and thrust back the Mexican force into the plaza. Concentrated there, it was bombarded through the night by the 10-inch mortar, in action again after its inglorious debut. Field pieces took position to command all avenues of escape.

At dawn bugles in the plaza requested a parley. The Mexican commander accepted Taylor's demand for the surrender of Monterrey, agreeing to evacuate the city, providing his troops would be permitted to march out with the honors of war according to an ancient formula, "drums beating, colors flying, with arms and ammunition including one field battery, chests filled, ball in the mouth, and matches burning."

The Americans, marching up to the strains of "Yankee Doodle," marshaled ranks to watch the enemy's departure. They paid brave foemen the tribute of silence until a body of artillerymen in the uniform of Mexico filed by. Then jeers and hisses broke out. Those gunners were deserters from the U.S. Army, organized as the San Patricio (Saint Patrick) Battalion by Sergeant John Riley. They had taken their baptism of fire at Monterrey and stood it well. Former comrades, who reviled their departure from the surrendered city, would meet the formidable San Patricios on other battlefields, notably Buena Vista.

WO battle ever embodied the phrase "theater of war" as vividly as did Buena Vista, its backdrop a range of lofty mountains, its stage a broad plateau cut by ravines—entrance from the wings. Late in the day a sudden, unseasonable storm, with peals of rolling thunder and blinding flashes of lightning, added overwhelming sound effects to the roar of cannonading and the rattle of musketry.

The advance of Santa Anna's army of 18,000 through the pass, its descent of the slopes, and deployment on the plain were pure drama. Martial pageantry of past centuries flourished again when, after a clash on 22 February 1847, the Mexican array was marshaled for battle on the following morning. Bugles blew fanfares, answering one another. Lancers, infantry, artillery formed. Bands played sacred music, and incense, prelude to powder smoke, spiraled skyward as priests in gorgeous vestments bestowed benedictions on



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kneeling soldiers. Horse and foot wheeled and countermarched in spectacular evolutions.

While a Mississippi rifleman muttered with a grin that the splendid lancers yonder looked "too pretty to shoot," Taylor, in the nondescript civilian clothes he preferred to uniform, lounged in the saddle and watched out the display. Then in nonchalant disregard of the Mexicans' considerably superior numbers he gave the attack order.

A cannon boomed. Lieutenant John Paul Jones O'Brien of Washington's battery, 4th Artillery, at 1,500 yards opened with the guns he called his "Bulldogs."

Out of the frigid mountains, through gullies of the plateau swept by chill winds, three columns of enemy infantry moved forward to the assault. O'Brien deluged them with shrapnel. Beautifully timed bursts exploded, flattening whole platoons with each discharge while cheers rippled along the American front. Other sections of Washington's battery, along with Thomas's and French's sections, poured in canister as fast as they could fire. But Santa Anna's spearheads came gallantly on and spread out into a wide semicircle, which tightened to envelop Taylor's left.

AN Indiana regiment, confused by its colonel's orders, gave way and streamed to the rear. Jefferson Davis's Mississippi Rifles and Illinois men could not stem the oncoming tide, nor could the massed batteries. Across the plateau Sherman, Bragg, and Reynolds were in hot action. The volume of fire delivered by the American artillery this day averaged 250 rounds per piece, a remarkable rate for muzzleloaders.

To the flank and rear of the threatened point Thomas was working his guns rapidly. But it was O'Brien out in front who bore the brunt. He limbered and withdrew for a space with the retreating blue infantry, then halted and opened again.

Mexican 8-pounders had found the range and were throwing in a storm of iron, but the heaviest and most accurate fire came from a battery of 18s and 24s. Santa Anna had ordered the San Patricios forward. Under their banner blazoned with the arms of Mexico, a figure of St. Patrick, and a harpthough only a proportion of them was Irish-the turncoats served their guns with smooth efficiency. These colorados (or Red Company) as they also were called because many were redhaired, today and later, at Contreras, would account for the lives of many of their erstwhile comrades-in-arms.

NDER that shell fire and musketry volleys O'Brien fought his three guns with the stubborn gallantry of the great sea captain whose name he bore. Enemy infantry pressed him so closely that he could not hold his ground. He retreated, but only by the distance his pieces recoiled after each discharge. As they rolled back, crews followed and flung themselves on them when they halted to load and fire again, blasting back the onslaught with double canister. Still the assaulting enemy came on over the bodies of their dead. They took O'Brien's 4-pounder, as the last cannoneer fell.

One of the 6s, disabled, was withdrawn. Another, forwarded from reserve, replaced it. The two Bulldogs barked on, now manned by powderblackened skeleton crews. Horses lav dead in their traces around the limbers, yet O'Brien might still have been able to bring his 6s off by hand. He could have saved the guns, he told himself, "but in such case the day might, perhaps, have been lost." He stayed.

How O'Brien kept on firing with enemy infantry mere vards from his muzzles stands as one of the most heroic exploits in artillery annals. At last he was wounded, and the few surviving gunners limped and hobbled to the rear, abandoning the smoking pieces. Neither assurance that he had indeed saved the day nor the major's brevet he received for gallant and meritorious conduct diminished his sadness over their loss. His wound relegated him to quartermaster duty for the rest of the war. A promising career as an artillerist, which might well have reached brilliance in the Civil War, was cut short by his untimely death in 1850.

A triumphant rush of men in gaudy uniforms seized the Bulldogs and sent them to the rear. The Mexican artillery had acquired two new guns-guns the Americans would meet again six months later in the south.

Across the plateau Bragg's flying battery whirled at a headlong gallop. Close to the spot where the capture of O'Brien's cannon had opened the way for a Mexican victory, it swung smartly from column into line. Cannoneers turned

their mounts over to horseholders, swarmed around the spaced field pieces, and at Bragg's command poured shot into the enemy masses. Taylor rode up to the battery and calmly sat his target of a white horse while bullets whistled through his coat. It was then he gave his celebrated order.

Let the shade of Old Rough and Ready stand absolved from the mild "A little more grape, Captain Bragg," of history books. The bluff old General's characteristic command was, according to a member of his escort (Private S. E. Chamberlain, later a Confederate brigadier): "Double-shot your

guns and give 'em hell!'

Bragg's battery obeyed with enthusiasm. Mississippi infantry were back now, led by Davis, wounded but firm in his saddle. Their steady volleys were augmented by the Illinois regiment's and the rallied Indianians. All along the line the guns flamed. Waves of an attack, which had come so close to sweeping the field, ebbed back into the ravines. Rifle and cannon fire from the fore and rims above slaughtered them. 'The dead lay in the pent space body on body, a blending and interlacement of parts of men as defiant of the imagination as of the pen," Lew Wallace recalled.

"Old Wooden Leg," as the Gringos called Santa Anna because of his pegleg, had been "licked up like salt." But it had been a near thing, with the fortunes of war hanging in delicate balance when the American left was enveloped and driven back. The sacrifice stand of O'Brien's Bulldogs and Bragg's battery galloping into action had saved the day. "Without our artillery," General Wool declared, "we could not have maintained our position for a single hour."

THE Mexican army beat a retreat to the south. Taylor, though enemy casualties were twice as heavy as his, lacked sufficient strength to follow over the difficult terrain. From now on it was Scott's war. But Buena Vista would put Zachary Taylor in the White House in 1849.

Another aftermath occurred when a post with a large artillery range was established in North Carolina in 1918. The War Department took pains to explain that Camp Bragg was named for a U.S. captain, not a Confederate

(This is the first of two articles on the artillery in the Mexican war.)

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CAPT. JACK L. CAPPS

OUR peacetime military training is turning back into civilian life individuals who can wield a far greater influence upon the attitude of the American people toward their armed forces than can all our PIOs combined. The mass exposure of a generation of young men to the inner workings of the service is a revealing test in which an unembellished picture of the Army is transmitted to the nation through thousands of letters to the homefolks.

It is highly important that, when they depart, these "alumni" carry with them the deepest respect for the service, whether or not they are enthusiastic about recall. This respect cannot be engendered solely through elaborate post facilities, special service activities, extensive benefits, or preferential treatment. All those are merely frosting on the cake. If, after they complete a two-year tour where efficiency and leadership were demonstrated, these men leave with a feeling of having contributed toward the security of their country, their future support of the Army is assured.

The Army's present and future reputation, both in the service and out, is at stake—a condition that always exists in a democracy but right now is in sharper focus than ever. We must remember that the draftee or volunteer we deal with today carries with him a lasting impression of his initial service; he won't discard that impression

if and when recalled during an emergency. Far too many return to civilian life with either a marked distaste or a general apathy toward the service that at some future time might cost us dear. These discharged men become voters, civic leaders, and even the legislators who provide the funds which enable us to be fed and clothed, and to carry on our training and development programs. Some of them could be won over to the service so as to fill the ever widening gulf between draftee corporal and senior regular noncom.

Since these men who might affect our future are, because of their short term of service, relegated to positions of end men in the chain of command, we must look more closely at their immediate superiors: they are the Army these men will remember. Many shorttimers are lieutenants serving obligated tours and who are undergoing the

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same familiarization process. They accept or reject a service career on the impression that tour makes upon them. One complaint concerns leadership by directive, a practice firmly disavowed by all but disturbingly common in its presence. Confidence only in the written certificate has become habitual, whereas unspoken trust in the execution of orders in letter and spirit once groomed judgment in juniors that paid off in later positions of higher authority. Thus the limit of initiative is habitually defined by the extent of the certificate demanded. There is a spate of minutely detailed "implementing instructions." The typewriter has become a major tool and many fail to recognize the limitations of the mimeograph as a leadership medium. If today's corporals and lieutenants are not allowed to use their judgment and initiative, how can we expect them to handle increased responsibilities as the master sergeants and colonels of tomorrow? Malignant types of drivership and intimidation, as substitutes for leadership, are present to some degree at all levels.

The short-term soldier rightly expects the career man to personify the spirit of military service, and wants him rewarded for good performance. In our efforts to raise pay, retain benefits, and increase stability of assignment we have inadvertently deemphasized the real meaning of "service,"

MOBILIZE THE DISTAFF'S ECONOMIC POWER

MAJ. L. GORDON HILL, JR.

MOST large service posts are near small and medium-sized cities whose economic vigor depends largely on the business that comes from service families. Some posts have tried to impress upon these communities the importance of that fact. Gimmicks like paying all soldiers with two-dollar bills have a tremendous effect, temporarily. Some firms appreciate the serviceman's business and show it by giving discounts, easy credit, and extra services. Some large department stores have mil-

itary nights, when the store is open to service families only and sales are pegged at five to ten per cent off.

Though generally Army families are well treated, there flourishes in certain local business circles an element that is out to fleece service people for every dime it can get. A newly arrived family might pay "Honest Sam" twenty-five dollars for readjusting a TV set, whereas "Bill's TV Shop" would do the same job for from two to four dollars. Only too late does the new family discover

that "Honest Sam" pulls the same deal on anyone who will pay. But the new family's vow that "Honest Sam" won't get any more business soon fades. Except for a few friends, no one gets the word.

Not all civilian communities have a Better Business Bureau, and even if the Chamber of Commerce has means of taking action against shady operators, not many Army families raise enough ruckus over a few dollars.

The local commander is powerless. He can't place the town off limits. His position (and most likely the law) won't allow the publication of a blacklist. However, our economic power can

which implies loyalty, sacrifice and devotion to the nation-not to the finance officer, exchange service, or billeting officer. Regulars who perform only well enough to get by and show only enough industry to forestall passover at promotion time are easily spotted by the transient soldier. A remedy is for a conscious effort by regulars, officer and enlisted, to respect their compatriots for answering the call as the Nation's protectors and not as mercenaries. Once a man decides on a regular career, his superiors must encourage him through loyalty, guidance, and support. Failure to provide such encouragement fosters frustration and discontent that cannot be offset by increases in pay and allowances, however great.

Only by performing our duty to the limit of our capabilities can we produce efficient operation upon which high morale and *esprit* are built. Once

we have done this, the bread-and-butter soldier, intent only on reaching the pay table and retirement date, will fall by the way. The capable and devoted will remain to share the prestige, privilege and esteem they have earned and deserve.

In planning for the future we aim at those variables that have no counterpart in the past. One thing we must depend on is our reputation to maintain morale within our ranks to gain support from outside. If we demonstrate the highest standards of efficiency, leadership and *esprit* to the short-term soldier, regardless of his intentions regarding reenlistment, that reputation will be assured and our future prospects considerably brightened.

Capt. Jack L. Capps, a 1948 USMA graduate, has served as battery commander with FA and AAA. In June of this year he left the Chicago-Gary Defense Area for duty with MAAG, Ethiopia.

because of varying needs of the service. But this practice seems rather foolish, because on strength accounting records these officers are carried as surplus anyway. Why not use what they have learned?

There are problems affecting those fortunate enough to get an assignment commensurate with their schooling. For one thing, they go into a shop of people busy with their own jobs, who don't have time to give a guiding hand to a man who is to be around for only a short time. I know that many COs under whom these RFAs serve have a genuine interest in training them. But some don't have, simply because they haven't the time.

It all adds up to this: ten to sixteen weeks is not enough time in which to learn much by on-the-job training. The scope of what is acquired is small indeed—and soon forgotten.

The problem isn't insolvable. I recommend two courses of action:

Terminate active duty upon graduation. The fundamentals learned in school won't be so easily forgotten as during a period of uninteresting, unchallenging activity spent behind a desk. If an emergency arises, a oneweek refresher course would help.

To me, the best solution is an honest-to-goodness training program for these officers. Arrange schedules of visits and orientations at different shops that afford the most valuable training. Conduct field problems at regular intervals so that they can apply what they have learned.

I don't doubt that in some branches, particularly in the combat arms, postgraduate training is worthwhile and well rounded. But as for the rest, in

GIVE MORE TRAINING TIME TO CATEGORY R

LT. JACK H. EBBELER

A "CATEGORY R officer" does six months of active duty, reverts to reserve status, and spends the next seven and a half years attending weekly meetings and annual summer camps.

The purpose of the RFA program, we understand, is to train new officers during peacetime within the limits of lean funds. There is no question that basic courses at branch schools are the best theoretical foundation upon which to build toward experience.

Courses are from ten to sixteen weeks, which leaves ten to sixteen

weeks more of active duty for on-thejob training. Herein lies the weakness in the program.

For example, many basic graduates get assignments completely foreign to their academic training. I realize that normally this would happen anyway

Lt. Jack L. Ebbeler, AGC, USAR, was commissioned from the Indiana University ROTC. He recently graduated from the AG School's basic course as a member of the RFA six-month program, and is now Assistant Personnel Officer there.

be brought to bear against the jackthe-price-boys through those economic bat-swingers, our wives.

Service wives, like their civilian sisters, naturally swap ideas among themselves about bargains and about which stores to avoid. They should take one further step and compile a complete rundown of practically all businesses and services in the local civilian community. Each wife could fill out a short form when she runs into something she likes or dislikes about a business or service. It would be a small matter to sort these comments and publish them in a consumers' digest for military familiars.

Imagine the reaction of local merchants when the word gets around. If there is not a big scramble by practically every business, then our faith in competitive enterprise will have been severely shaken. Editions of this consumers' digest could appear bimonthly or quarterly. A business incurring the collective wrath of the Army wives would be given a chance to make corrections. To remain in the favored group, a firm would have to continue giving good value and service, or wind up in the "not recommended" list.

The information in the digest will also benefit unmarried soldiers. They too have trouble with used-car dealers,

insurance agents, loan companies, and the like. Reliable data about these types of salesmen and concerns certainly would be helpful to all Army people.

My proposal may not be the equivalent of a pay raise, but it will enable the economic power of the Army's families to be mobilized, and applied to get honest service as well as increased value out of their dollars.

Major L. Gordon Hill, Jr., a 1943 OCS graduate, has served in seacoast, AA and FA units, from 40mm gun to 240mm howitzer. In Korea he was with the 40th Infantry Division and I Corps Artillery. A graduate of CGSC, he is now on its Staff and Faculty.

my opinion it is a near waste of the taxpayer's money and the RFA's time. We don't regret our active duty. On the contrary, most of us feel we must be combat-ready if and when mobilization comes. But we must get more

from the RFA program than we do now if we and the Army are to benefit from it. We may be called back when knowledge and efficiency will be tremendously important, and the time to

acquire them short.

WE'LL NEED THE REPPLE DEPPLE

COL. JOHN A. GAVIN

AD Colonel Dolan in "Farewell to the Repple Depple," in the August issue, stated that we cannot afford to have our combat replacements mishandled and mistreated as in World War II, I could agree with him. But he attempts to prove that unit replacement will replace individual replacement, except for comparatively small driblets. His idea is that in future atomic wars there will be little or no need for installations to process replacements. I don't believe this.

Since in an atomic war the casualty rate will be much higher, it is my conviction that unit replacement will supplement and complement individual replacement, because battalionsized units will literally disappear. Also, combat will be continuous along the entire front, and men will continue to be killed by today's "conventional" weapons; probably there will be more casualties along the fighting front than in the limited area the enemy selects to use his million-dollar weapons. Add to these the non-battle casualties of eight per cent Colonel Dolan mentions. Individual replacements must fill these empty spots so as to maintain the unit's combat effectiveness. You may say that since a man can't be overkilled by an atomic strike and by a rifle bullet, some manpower saving on individual replacements will result. I do not agree with this reasoning, for the integrity of the battle front must be maintained, and another unit substituted for the decimated one. The man who immediately fills the place of an atomic casualty is exposed to the same chance of becoming a casualty, atomic or "conventional."

Our economy cannot afford to provide unit-for-unit replacement with all the required equipment and transportation. Replacement must be man for man, supplemented by battalion-sized units to be used exclusively, under army control, to replace similar units knocked out by atomic strikes. Re-

member that in World War II we had to keep eleven men (individual replacements) in the pipeline for each twelve riflemen and weapons crewmen engaged in battle.

I challenge the contention that individual replacement requirements will be meager. The system of individual replacements in large numbers must stay. The need is for command and staff to recognize the gigantic problem and to plan to meet it effectively when it arises.

The repple depple of World War II fell into disrepute because the system gave no consideration to the individual; it lacked, as Colonel Dolan says, the means of implanting a sense of belonging; the system as a whole was managed by a user, ComZ, which robbed it for its own purposes until General Marshall ordered the establishment of a separate theater army replacement command under the theater commander. Lastly, the requisitioning system precluded the maintenance of combat effectiveness in units because of the time lag in processing.

I contend that replacement units and depots to handle individuals will be needed in an atomic war, but the over-all control of the system overseas must remain directly with the theater commander. If a reduction in numbers

of such units is to be foreseen, it must come through streamlining processing procedures. The requirements for individual replacements will be as great, if not more, than during World War II. The bulk of them will be POR qualified.

The shortcomings of the old repple depple must be eliminated. Key personnel and depot commanders must be carefully selected from among combatexperienced officers. We must overcome the esprit problem of "the bewildered casual." I suggest that each division going overseas drop off a replacement training cadre in CONUS to train packets and groups of needed individuals for shipment to parent units as combat replacements. These men would continue to wear the insignia of their division to maintain their sense of belonging. The training cadre could serve as a home base to which recovered combat casualties could be detailed as instructors. In the same way, an infantry division could activate and train an "extra battalion" or two to go overseas with it. Such units, however, would revert to army control.

The time lag in replacement requisitioning can be greatly reduced by authorizing divisions to maintain in replacement companies a constant overstrength of, say, three hundred riflemen and weapons crewmen.

Let's not say farewell to the repple depple, but get into the business of correcting defects in it. We'll need it as long as we need men to continue the fight.

Col. John A. Gavin, Infantry, is Senior Army Advisor, Hawaii NG. During WWII he was executive officer of G3 Section, Fifteenth Army headquarters. In Korea he commanded the 31st Infantry (7th Division). He has had two tours with the Staff and Faculty, CGSC.

LOGISTICS EXPERIENCE FOR COMBAT ARMS OFFICERS

LT. COL. THOMAS L. LYONS & MAJ. JOHN K. BRIER

TOO few combat arms officers realize that while they may never become Napoleons, they are potentially great officers. Many have real but hidden talent as logistics staff officers or as commanders of nontactical troops. In fact, their greatest potentiality may well lie in logistic and administrative activities because they are acutely aware of the detailed needs of fighting troops. During World War II, Headquarters Army Service Forces required more top-flight staff officers than Headquarters Army Ground Forces (the forerunner of CO-NARC). It is fair to say that the nontactical units of ASF had great need for competent commanders and welltrained staff officers. This flies into the face of the prevalent opinion of combat arms officers that the real challenge to their professional ability lies solely in command of a tactical unit,

Officers in logistics face the grave responsibility and stimulating challenges of being at war today; the logisticians' battles are being won and lost now.

Top Army leaders who are directing the use of logisticians greatly respect the man of experience and ability, regardless of age. Where some tactical commander may pass over the fortyyear-old colonel for command assignment, that same oldster, if he is a trained logistician, can get responsible logistics assignments, in keeping with his proven ability. We can't afford to waste such a scarce commodity.

If each of us could plan and execute his own professional career (and live long enough), we could develop a thorough background in all the major fields needed by a commander to meet his combat requirements. The logistics field offers many challenges for exercising initiative, imagination and leadership during the development and use of this knowledge.

A combat arms officer may feel that

being marked as a "logistics type" places him in uneven competition with the technical service officer for the top spots. This is not true. The Logistics Officer program is in being because all available sources of outstanding officers must be exploited to meet today's requirements in logistic activities -which will increase geometrically with war or an emergency requiring a mobilization.

A combat arms officer selected for logistics need not fear he will get only logistical assignments. The normal career pattern provides that he will alternate logistical tours with branch material tours. Neither should he fear in regard to promotion, for the added experience and opportunities gained during logistical tours should make him more qualified professionally across the board than his contemporaries who drift to other less-guided fields during their inevitable branch immaterial

Another motivation for entering the program should be the desire of thinking combat arms officers to keep-or

reestablish (depending on one's estimate of the situation)-the logistics system as a flexible, invaluable servant of the fighting troops.

In the logistics field the combat arms officer can find wide latitudes in which to perform stimulating service, the rewards of which are satisfaction derived from meeting a challenge, increased opportunities for schooling, and successively increasing positions of great importance. Officers in the Logistics Program may well look forward to increased promotion opportunities as the Program gains the impetus expected of it by top Army leaders. In wartime, opportunities for promotion are even greater as new commands are formed and staffed from among those who can meet the greatest test of the professional soldier.

Lt. Col. Thomas L. Lyons, TC, was commissioned from OCS in 1942, served in ETO with the 313th Infantry (79th Division), and collaborated in writing its history. He is on duty in the Pentagon. Major John K. Brier, Armor, a student at CGSC, graduated from West Point in 1943 after serving as an enlisted man.

BRINGING UP THE STAFFS

COL. JOHN D. BYRNE

TODAY'S Army officer must devote more effort in preparing himself for staff duty than his predecessors. Though he knows his primary job is field command, he must face two facts: the thirty years of his official life involve fifteen to twenty of staff work; and more than half of that duty will be in high-level staff agencies.

A glance at today's organization shows that this is so. Command and staff positions in battalions, regiments and divisions are few indeed compared to the slots that must be filled in higher headquarters, schools, joint U.S. staffs, international staffs, MAAGs, and missions.

In these higher staff units, both at home and abroad, the officer meets on equal terms people who are full-time and experienced staff professionals. These professionals long ago adopted the best principles and techniques of the military staff as a decision-making machine. On-the-job training, therefore, is an education for the officer, but a costly process indeed for the agency to which he is assigned.

Our training system, and particularly

our school system, must emphasize what the officer will do in his next ten years, against what he may do if war comes. For example, schools must teach today's staff officer parliamentary procedure (how to act as chairman or secretary, how to write minutes and reports). Napoleon's maxims are not enough; a mastery of Robert's Rules of Order is a military necessity too.

As a practical matter, the Army's own staffs must conduct lessons on the true value of a draft paper. In the early military training of the young officer, great and proper emphasis is placed upon speedy and forceful decisions. Writing a field order thus becomes a filling-in of spaces on a form, after he has made the fundamental decision. This early training tends to become a habit that carries over into other papers, and causes officers to insert "decisions" too early in the drafting process. Plainly, our great staff need is to use the draft paper as an idea-gathering device. The draft must be viewed as the cheapest and least permanent piece of paper in the world. It should be worked up, circulated, commented upon, and reworked. The improvement of the quality of day-to-day papers of course takes a long time. But improvement is possible: as the quality of basic writings about a subject improves, so too does the quality of papers on the same subject that must be produced in a hurry.

Another practical point might be the adoption of a single General Staff MOS instead of separate ones for G1, G2, G3 and G4. At present the officer is perhaps too expert in his individual staff specialty and not expert enough from an over-all staff point of view.

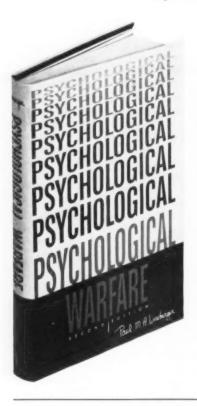
Other practical things for officers to learn are to step forward when appropriate and to seek the chairmanship, or the job of writing the group report, and to use these administrative devices to get the job done. Here the staff officer is in a separate world from the writing of the field order: he is writing toward a decision, rather than away from it.

What is the object in bringing up the staffs? Very simply, if Army officers are to be leaders of men, they must first excel at the administrative work necessary before any force can take the

Col. John D. Byrne, Artillery, has contributed several articles to ARMY, the latest being "New Vistas in Military Education" (February 1956).

PSYCHOLOGICAL WARFARE

By Lt. Col. Paul M. A. Linebarger, USAR



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written, this is a book that every troop leader of a combat unit owes it to himself to read. Officers and NCOs alike can profit from the lessons it teaches.

COMBAT SUPPORT IN KOREA

By Capt. John G. Westover



Medics, engineers and signalmen; ordnance, quartermaster, chemical and transportation corps troops—all are necessary if the front-line soldier is to accomplish his mission. The Korean war put a severe strain on all combat support units. Installations had to move fast and often; men and machines were taxed to the limit of endurance; it took courage and ingenuity to get supplies through to combat troops.

These post-battle interviews show clearly the hazards combat support units face in modern war—and how ingenious and courageous people went about solving them.

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THE MONTH'S BOOKS

Valor of the American Soldier

HEROES OF THE ARMY: The Medal of Honor and its Winners By Bruce Jacobs W. W. Norton & Company, 1956

Reviewed by Capt. Charles B. MacDonald

211 Pages; Index; \$3.50

The story of the Mitchel Raiders, who played the role of protagonists in the Great Locomotive Chase during the Civil War, has often been told, most recently on film. Now comes Bruce Jacobs to use it as an exciting point of departure for telling the story of the Medal of Honor and those who have received it over the years.

Six of the Mitchel Raiders were the first recipients of the Medal of Honor. The award could have had no more auspicious beginning; but in the months and years immediately following its inception, confusion over the purpose of it and lack of regulatory controls resulted in such wide distribution that the distinction of the award was seriously jeopardized. All 864 members of one Civil War regiment received the Medal. As late as 1898, the Medal of Honor still was being awarded for Civil War actions.

It remained for Elihu Root during his distinguished term as Secretary of War to press for the action which made the Medal what it is today, the U. S. equivalent of the Victoria Cross. On 27 April 1916, an act of Congress officially established the Medal as we know it. Two years later the Distinguished Service Cross and the Silver Star were created as lesser awards in what now is sometimes called the Pyramid of Honor. Others in the pyramid are the Distinguished Flying Cross, the Soldier's Medal, the Bronze Star Medal, and the Purple Heart.

Mr. Jacobs's book is in marked contrast to an earlier work on the same subject, The Medal of Honor of the United States Army, prepared by the Public Information Division of the Army and published by the Government Printing Office in 1948. The earlier volume is a scholarly reference work, while the new book clearly focuses upon the exciting and popular. Where the historical evolution of the Medal of Honor formed the backbone of the earlier work, Mr. Jacobs is concerned with it only as an incidental among a series of vignettes about men who have won the Medal. A publisher's claim that the new book provides "the only existing complete list of Army Medal of Honor winners since 1898" is correct only in that the PID's volume was published before the Korean conflict.

In Heroes of the Army the author has chosen to tell the story of the Mitchel Raiders and 17 others of the 2,193 recipients of the Medal of Honor. No real pattern can be discerned from his selections. Though some famous names appear, like Sergeant York, "Commando" Kelly, and Theodore Roosevelt, Jr., others like Rodger Young and Jake W. Lindsey are mentioned only in passing. Four of the heroes given detailed treatment served in World War I, eight in World II (four in the Pacific, two in the Mediterranean, two in Europe), and five in the Korean conflict. Almost all the stories are intrinsically interesting, and in some cases the author achieves the genuine excitement he seeks. That the reader may on occasion sense repetition and a struggle for synonyms in the field of superlatives is perhaps inherent in a work of this sort. Understatement is seldom a handmaiden of the combat awards program. It is to the author's credit that his superlatives show as seldom as they do.

No matter how popular the author's approach to his subject, he obviously has

engaged in careful research. Except in a few minor instances, his historical facts appear accurate.

The book will attract younger readers more than the student of military affairs. It would have been enhanced by some pictorial representation of the Medal of Honor other than on the dust jacket.

The book is valuable in that it focuses popular attention on our Medal of Honor winners, whose achievements so well represent the general valor of the American soldier.

Magnificent Military Failure

GALLIPOLI
By Alan Moorehead
Harper & Brothers, 1956
384 Pages; Illustrated; Index; \$4.50

Reviewed by Lt. Col. Edwin H. Simmons

This is the first major book to be published on the ill-fated Dardanelles Campaign since World War II. The subject was a favorite one with British writers during the twenties and thirties. Perhaps no other British campaign has so extensive a bibliography. The old books, however, are remarkable for their one-sidedness. They were written for the most part by the protagonists themselves, critics or apologists as the case might be.

Alan Moorehead's book is something else again. It is an extremely sensitive piece of reporting—or reconstruction—of a magnificent military failure. Walter Millis says that he writes as Bruce Catton might write of the American Civil War. The comparison is apt. We read of Mustafa Kemal recognizing Chunuk Bair as the key position dominating the Anzac beachhead and getting there with a single battalion just before the Australians reached the crest and we are reminded of Warren's race for Little Round Top.

The concept for Gallipoli was largely a product of the First Lord of the Admiralty, Winston S. Churchill. He had the begrudging support of Field Marshal Lord Kitchener, whose star was then at its zenith, and the First Sea Lord, Admiral Fisher.

The strategy was beautifully simple. The Western Front had stabilized into a war of attrition. Trenches stretched from Switzerland to the North Sea. The Eastern front was in danger of collapse. Open the Dardanelles, take Constantinople, knock Turkey out of the war, and

THE MONTH'S REVIEWERS

Copt. Charles B. MacDonald, Infantry, USAR, is a civilian employee in the Office of the Chief of Military History. He wrote Company Commander, a classic on leadership in World War II.

Lt. Col. Edwin H. Simmons, USMC, formerly on the staff of the *Marine Corps Gazette*, is on duty at Marine Corps Headquarters.

Maj. Gen. Harold W. Blakeley, USA, Retired, commanded the 4th Infantry Division in ETO. He occasionally contributes articles and reviews to ARMY.

Lt. Col. Paul M. A. Linebarger, USAR, is on the staff of the School of Advanced International Studies, and is a consultant on PsyWar to the Army.

Major Orville C. Shirey, Infantry, USAR, a former contributing editor of ARMY, is in the advertising business in Washington.

Lt. Col. Winant Sidle, Artillery, was integrated into the Regular Army in 1946. He is assigned to the Department of the Army Staff.

the strategic flank of the Central Powers would be turned. Russian wheat could come out to hungry western Europe by way of the Black Sea. Allied munitions could go in to bolster the Tsar's faltering army.

The tragedy was played in five acts. First there was the naval attack against the Narrows of the Hellespont, ships against forts. This was 18 March 1915. De Robeck, the British admiral, moved his fleet forward in three lines. There were 16 battleships in all: 12 British, 4 French. The fleet went in under heavy enemy fire. Even so, at first things went well. Then it ran afoul of unsuspected lines of mines. (The minesweepers with civilian crews had done their job very poorly.) Irresistible went down, to be followed by Ocean and Bouvet.

The decision was that the Navy couldn't do it alone; the Army must come in. The landings on 25 April followed an incredibly complicated plan. There were seven separate landings and a feint. There was no coordination, no

control, no communication.

The French landed to the south on the Asiatic side of the Dardanelles at Kum Kale, almost on the site of legendary Trov. The Royal Naval Division demonstrated well to the north at Bulair.

These flank actions were side shows to the main effort.

At Cape Helles the British landed over five separate beaches. Resistance ranged from nothing to severe. At the most critical beach, River Clyde went in and was beached, the forerunner of World War II landing craft. But as the Tommies came across its ramps they were shot down by Turkish rifle fire.

The other major effort was the landing of the Australian and New Zealand Army Corps (already they were calling themselves the "Anzacs") to the north at Gaba Tepe. They got ashore without resistance, but on the wrong beach and in great confusion. Then Mustafa Kemal counterattacked. The British general got his wind up and requested permission to reembark. The commander in chief, General Sir Ian Hamilton, ordered him to make a supreme effort to hold his ground, and added a postscript: "You have got through the difficult business, now you have only to dig, dig, dig, until you are safe."

The Anzacs took his advice to heart. Their beachhead soon resembled a mining camp and, so says the author, Australian soldiers have been known as Diggers ever since.

Then came the stalemate. The British

could not break out of their beachheads: the Turks could not drive them into the sea. The trench warfare that developed in May, June and July was a bloodstained copy of the Western Front.

Fresh troops came out from Kitchener's New Army in August. There was another landing on 6 August, this one at Suvla Bay, north of the Anzac beachhead. There were some technical improvements over the April landings. There were the Beetles, for examplelanding craft that could carry 500 men or 40 horses. But the generalship was poor, the new troops were green, and a German major with less than 1,500 Turks contained 20,000 British until the inevitable Kemal could come up with

Suvla was the last positive effort to regain a war of maneuver. The blazing heat of summer gave way to an unprecedentedly cold fall; dysentery was replaced with frostbite. The fifth and last act remained to be played.

The evacuation began in the middle of December. There were gloomy prognostications of thirty or forty per cent expected casualties. But the withdrawal went like clockwork. The Turks were kept completely in the dark. The last 17,000 came off of Cape Helles the

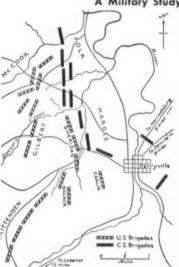
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LINCOLN FINDS A GENERAL

A Military Study of the Civil War . VOLUME IV: IUKA TO VICKSBURG

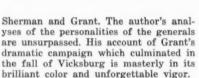


Battle of Perryville, October 8, 1862

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In this second year of conflict in the West there were hard marches and heavy, determined fighting in Mississippi, Kentucky, and Tennessee, as well as lesser though important battles beyond the Mississippi. On the Confederate side, Van Dorn, Price, Kirby Smith, Bragg, and Pemberton dueled with Rosecrans, Buell,



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night of 8-9 January 1916. By 0200 there were only 200 ashore. (They were delayed by General Maude, who had to go back to get his valise.) It was just 0345 when they finally pushed off. Not a man had been left behind.

Anyone who was in the Hungnam evacuation will understand the comment one British soldier made to his officer in reference to the dead who were left behind: "I hope they won't hear is going down to the beaches.'

The author handles his cast of characters admirably. Churchill and Kitchener are paired off against Enver Pasha, the Turkish War Minister who looked like a matinée idol and who dictated his wishes at a Cabinet meeting with a drawn revolver on the table, and Talaat Bey, an Oriental intriguer who arranged the Armenian massacres. Mustafa Kemal emerged, of course, after the war, as Kemal Ataturk, founder of modern Turkey. General Hamilton, the poet-soldier, was never given a command again.

Roger Keves was the youngish commodore who spurred the phlegmatic De Robeck and kept alive the naval participation in the operation. He never outlived his enthusiasm for amphibious operations, and in World War II did great service as Director of Combined Operations and was largely responsible for the formation of the Commandos.

The biographical passages are vivid, but the best writing in the book is reserved for the anonymous rank and file. Especially good (and completely genuine to the military reader) are his descriptions of the routine of trench life and of the soldiers' reactions to the ebb and flow of the fortunes of the campaign. His favorites are the Anzacs, and this is understandable. Alan Moorehead is a native Australian. During World War II he was a war correspondent in the Middle East and Africa, and is best known to American readers for his biography of Montgomery.

The General af-

at Cold Harbor in June 1864

ter Lincoln "found" him-

A reconciliation of the size of the forces employed by the Turks and the British and the casualties suffered strikes a curious balance: There were 410,000 British and 79,000 French soldiers engaged. Of these, 252,000 became casualties. On the other side, some half million Turks and a leavening of Germans took part. Their casualty list totaled 251,309.

In his epilogue, the author goes into the political consequences of Gallipoli, but for one reason or another overlooks the derivative effect of the campaign upon military thinking. The almost unanimous consensus after Gallipoli was that the amphibious assault of a fortified beach was suicidal in the face of modern weapons. One notable exception to this general trend of thought was to be found at the Marine Corps Schools at Quantico where a small group of Marine Corps and Navy officers during the interim between World Wars dissected the Gallipoli operation. Largely as a result of this study a sound amphibious doctrine was evolved which stood this country in good stead in World War II. The les-

sons of Gallipoli were mostly negative, but they were all there: the need for a specially trained landing force; the need for an integrated naval and landing force command; the technical requirements for adequate communications; shore fire control of naval gunfire; adequate air cover; suitable landing craft and amphibious vehicles; and combat loading. These were the ingredients which were either too rudimentary in form or absent altogether at Gallipoli.

Almost Inestimable Service

LINCOLN FINDS A GENERAL, Volume IV: luka to Vicksburg By Kenneth P. Williams The Macmillan Company, 1956 595 Pages; Illustrated; Maps; \$7.50

Reviewed by MAJ. GEN. H. W. BLAKELEY

On 13 July 1863, nine days after Vicksburg had been surrendered, Lincoln took his pen in hand, literally, and wrote to Major General Grant: "I do not remember that you and I ever met personally. I write this now as a grateful acknowledgment for the almost inestimable service you have done the country. He went on to describe the fears he had had that Grant was making mistakes. He finished: "I now wish to make the personal acknowledgment that you were right, and I was wrong."

So, in the fourth volume of this sevenvolume military study of the Civil War, Lincoln "finds a general," and Professor of Mathematics Kenneth Williams carries on his detailed and critical account of the war. His volumes, incidentally, should not be confused with Professor (of History, this time) T. Harry Williams's Lincoln and His Generals. Confusion about Civil War books, i. might well be added, is justified. It seems incredible, but about a hundred books, according to a New York Times estimate, dealing with the Civil War, will be published in 1956. What sort of a flood will be let loose a few years from now when centennials begin to roll around is hard to imagine.

Iuka, of the current volume's title, is the Mississippi town where, in September 1862, a Union force indecisively defeated a Confederate force, but, as the author puts it, "the main theme of this volume is Vicksburg."

Vicksburg as a theme is an appealing one. Steele, in his American Campaigns, says: "Barring the question of a base and a line of communications there has been no more brilliant series of military operations in American history, and none that conformed more closely to the principles of the military art, than the operations of Grant's army from the day on which it fought the battle of Port Gibson until

Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books will appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service. See page 88 for order coupon and a complete listing of Selected Books for Military Readers.

CENTURY OF CONFLICT: The Struggle Between the French and British in Colonial America. By Joseph Lister Rutledge. Doubleday & Company, 1956. 530 Pages; Maps; Index; \$5.00. Too much for casual reading, this is a voluminous, popularly written account of a period that American students do not find particularly interesting. Volume II of the "Canadian History Series."

DICTIONARY OF AMERICAN FAMILY NAMES. By Elsdon C. Smith. Harper & Brothers, 1956. 244 Pages; \$4.50. An obviously interesting, and probably scholarly, inquiry into the origin and meaning of more than 10,000 family names found in the United States, from Aagaard to Zylstra.

THE EARLY CHURCHILLS: An English Family. By A. L. Rowse. Harper & Brothers, 1956. 378 Pages; Illustrated; Index; \$6.50. An almost worshipful biography of the beginnings of a famous family, one that has much to connect it with the United States. The story ends in 1744.

FORWARD, GUNNER ASCH! By Hans Hellmut Kirst. Little, Brown & Company, 1956. 368 Pages; \$3.95. Those who enjoyed *The Revolt of Gunner Asch* will find more of the same, probably better. Asch, a World War II German artilleryman, doesn't care much for authority, is quicker-minded than most of his superiors, and proves that soldiers are pretty much the same everywhere.

MASS COMMUNICATION: Television, Radio, Film, Press. By Erik Barnouw. Rinehart & Company, 1956. 280 Pages; Illustrated; Index; \$4.50. A short, and necessarily high-spotting, survey of the media that influence your buying habits and your thinking. The bibliography is particularly valuable for those who want to study further in this increasingly important field.

OFFICIAL HISTORY OF THE CANADIAN ARMY IN THE SECOND WORLD WAR. Volume II: The Canadians in Italy, 1943-1945. By Lt. Col. G. W. L. Nicholson. Ottawa: The Queen's Printer, 1956. 807 Pages; Illustrated; Maps, Index; \$3.50. Well written, with superb maps, and at a bargain price compared to American printing costs.

OUR VALIANT FEW. By F. van Wyck Mason. Little, Brown & Company, 1956. 436 Pages; Illustrated; \$3.95. Another of Mason's robust and spicy historical novels, this one about Charleston and Savannah at the time of the Civil War blockade. Those who liked *Proud New Flags* and *Blue Hurricane* will find more of the same.

SHOULDER-BELT PLATES AND BUTTONS. By Major H. G. Parkyn. Gale & Polden, 1956. 341 Pages; Illustrated. Descriptions, photographs, and the history of the distinctive ornaments of British regiments. Complete and clear. Books like this explain the secret of why the British regimental system has paid off through the years.

WEST POINT YEARLING. By Colonel Red Reeder. Duell, Sloan & Pearce, 1956. 241 Pages; \$3.00. Sequel to Colonel Reeder's popular West Point Plebe. For late teen-agers who might be considering, or should consider, West Point as the beginning of their careers.

it arrived in front of the Confederate works at Vicksburg. The campaign was full of lessons for the military student . . . not a mistake of strategy can be pointed out in Grant's operations and scarcely a mistake in tactics was made by his subordinate commanders."

Although the author makes the point that "Vicksburg is Grant," it remains true of this volume as of its predecessors that the emphasis is on military detail rather than on biographical record. On the other hand, the Grant story develops as the general's place in the history of the war becomes more important, and the author doesn't hesitate to differ sharply with other supposed authorities, Cadwalader particularly, on many points.

Williams also disagrees positively with some generally accepted concepts of the operations of the period. For example,

Steele says of Buell's move on Chattanooga: "In ordering Buell to rebuild and repair the Memphis and Charleston Railway as he progressed, Halleck placed upon him a handicap that defeated the object of the enterprise." The British military writer, Major General J. F. C. Fuller, says in his The Generalship of U. S. Grant, that Buell advanced "under conditions imposed by Halleck which compelled Buell to repair the Memphis and Charleston railroad. . . . This caused endless delay." Williams says flatly: "One of the great myths of the war is that Buell's move on Chattanooga failed because Halleck required him to rebuild the Memphis and Charleston Railroad as he advanced."

Some military student may have additional information on a minor point about which the author is not so positive. He

says that at Vicksburg on 22 May 1863 the attack was launched, not on the usual signal of a gun being fired, but at a prescribed time after watches had been synchronized: "Perhaps this was the first time that this was ever done."

Mr. Williams again expresses appreciation for critical readings of his manuscript to a former editor of *The Infantry Journal*, Major General E. F. Harding.

Antagonist Unveiled

RUSSIA WITHOUT STALIN: THE EMERGING PATTERN By Edward Crankshaw The Viking Bress, 1956 264 Pages; Index; \$3.75

Reviewed by Lt. Col. Paul M. A. Linebarger

This is the most important new book about the Soviet Union in years. For the military reader, it takes its place beside Carew Hunt's The Theory and Practice of Communism, Stefan Possony's A Century of Conflict, and Nathan Leites's The Operational Code of the Politburo in presenting the big picture of Communism, of the USSR, and of the mortal combination of the two.

Crankshaw, completely without secrecy or scholastic pretentiousness, presents a Soviet which is profoundly different from the paradise sketched by the Leftists and the fanaticism-haunted hell presented by anti-Communists. He is himself mildly Left, by American standards, but his politics do not impair his view. He portrays a Soviet which is now big enough to relax, strong enough not to go to war soon, and preoccupied with problems of internal development.

In other words, Crankshaw's Russia lacks the philosophic depth of the one shown by Possony or Carew Hunt, but it is a human, warmly believable country, described by a really expert newspaperman who knows the Russian language. Crankshaw can hope for "communism"-he means the existing system -in the Soviet Union to succeed if it makes the human beings in that country happy; he does not desire his own safety at the price of their unhappiness. This might be enough to stamp him as a starry-eyed philanthropist, except for the chilly realism of a passage such as this, in his summary of Soviet leaders: "Malenkov is an extreme and complex example of a common phenomenon in the Soviet Union: the man of culture and charm and wit who has committed abominable crimes-and then turned round on the men who raised him to power and on whose behalf he committed those crimes. What are we to make of him?" His descriptions of Khrushchev, Mikoyan, Kaganovich, and other top-level men almost give the reader the feeling of having met them personally. Of "the abominable General Serov," Crankshaw says only that he owes his fame to "organizing private lives of the most scandalous sort for overworked Communist executives."

Not the politics, but the business, family, and entertainment life of the USSR form the essence of this book. Did you know that a Louis Armstrong record, bootlegged on an old X-ray plate, is the ultimate in fashionable decadence among Moscow youth? Did you know that the Soviet Union has a problem with rich young loafers carousing in good hotels? Or that "honest graft" (blat) makes the wheels go around in the USSR? This is the most human work on the Soviet Union to appear in a long time.

Different readers will discover different shortcomings in the book. This reviewer, for example, thinks that Crankshaw seriously underestimates the effects of doctrine upon action. Yet, since the book is an intensely honest book and even manages, on occasion, to be uproariously truthful, the author is dealing legitimate cards and has nothing to hide. He himself gives the reader material with which to disagree. No more could be asked.

Literary and Military

SHAKESPEARE'S MILITARY WORLD By Paul A. Jorgensen University of California Press, 1956 345 Pages; Index; \$5.00

Reviewed by Major Orville C. Shirey

Many of Shakespeare's plays portray—within the limits of the stage—wars and soldiers. Just how accurate were these portrayals, in terms of histories available to Shakespeare, and in terms of his own experience and of contemporary military writing?

In 1949 Duff Cooper set about proving (in Sergeant Shakespeare) that the playwright had been a sergeant during his so-called "dark" years, which was why he did not write very accurately about generals.

Now Paul Jorgensen has studied and reviewed the whole field of Elizabethan military writing, as well as Plutarch and other historians of the wars of antiquity available to Shakespeare, and has drawn some interesting conclusions.

Shakespeare, he finds by comparison of the plays with documents of the time, was largely influenced by the Elizabethan philosophy and practice of war, and not by any military service of his own.

One finds in his plays, modified at times by the necessity of intensifying dramatic impact, about the same human problems that the Elizabethans had to contend with in fighting their wars: discord between commanders of equal rank where there was no single supreme commander; the difficulty of finding good

troop leaders; the tendency of the enlisted men, conscripted by the most shameful methods, to run like sheep at the first sight or sound of battle; the domestic hazards of society in peacetime, as opposed to the at least temporary blessings of wars; and the failure of the soldier as a citizen in a society at peace, perhaps because society itself mistrusted the military when it was not busy protecting the nation.

If these problems sound familiar to the modern ear, it may well be because we have heard some of them so recently in books and newspapers, just as Shakespeare heard them in his time, and built many of his military situations around them.

Shakespeare's Military World will interest the student of Shakespeare and the student of war in the Elizabethan era. We commend it also to the military man who may be looking for something to take his mind off of thermonuclear weapons temporarily. This is a bit harder to read than a whodunit, but it is also a good deal more rewarding.

Battle of the B&O

GRAY GHOSTS AND REBEL RAIDERS By Virgil Carrington Jones Henry Holt & Company 431 Pages; Illustrated; Index; \$4.50

Reviewed by Lt. Col. Winant Sidle

Not so rollicking a tale as the Great Locomotive Chase, this is nonetheless a worthwhile backward trip into the world of disappearing trains, supplies, and generals of the Civil War era.

Mr. Jones's fascination with the guerrilla phase of the conflict has carried him through sixteen years of part-time research plus two and a half of concentrated effort, and the result is an interesting, browsing type of work which will be a welcome addition to historians' bookshelves.

It is his contention that the warfare of the northern and western Virginia partisans was so successful that it stymied plans of the Union leaders for winding up the war. He bases his theory on two premises:

(1) Grant, effectively blocked by Lee in 1864 before Richmond and Petersburg, required an advance by the Army of the Shenandoah on Lee's rear before the Army of Northern Virginia could be brought to its knees.

(2) Despite the preponderance of strength of the Union forces over those of the Southern generals in the Valley, guerrilla activities in support of the Confederates postponed the desired Union advance from the summer of 1864 until the spring of 1865.

He presents a well-documented case to support his theory.

Significant in the story is the Baltimore & Ohio Railroad, main east-west logistical artery running through the border area of North and South. Key to the effective supply operations of the Union Army and particularly the Army of the Shenandoah, the railroad was subject to such repeated attacks by Southern partisans throughout the war that thousands of Union troops were detailed to protect it. In spite of this, the attacks were often amazingly successful, and were so enthusiastically continued that the forces protecting the line could not be withdrawn until July 1865.

By early 1864, guerrilla activities had increased to the point where, in addition to the men required to guard the B&O, other thousands were needed to guard each wagon train that carried supplies from railheads to Union forces in the Valley. The Shenandoah became alive with bands of irregulars, forcing the Yankees to move in large formations or not at all. Important messages were often transmitted with an entire regiment guarding the messenger. Mr. Jones presents considerable evidence that these partisan operations were the real cause of the failure of Generals Sigel, Hunter, and Sheridan, the three Union commanders who tried to come to Grant's aid in 1864

Mr. Jones makes a good case for his belief that guerrilla activities confused Sheridan as to the amount of Confederate resistance in the Valley, causing him consistently to overestimate the enemy's strength, made him reluctant to venture far from his B&O supply bases, and greatly reduced his effective combat strength by forcing him to guard heavily his logistical facilities.

There is considerable detail concerning the activities of the most important Virginia partisan leaders. The ubiquitous Mosby, about whom the author wrote Ranger Mosby, is one of these, along with Harry Gilmor, Jesse and Hanse McNeil, Lije White, and others. It was Jesse who brought off one of the most embarrassing coups of the war, capturing in one night two Union major generals as they lay sleeping in the midst of thousands of Union troops. Mosby's sallies kept Washington in a continual uproar, and he also captured a sleeping Union general near the capital and came close, on another occasion, to capturing Grant.

Mr. Jones has taken much of the historical and anecdotal material which he uncovered during his long preparation for the book and integrated it into his narrative. As a result, the story tends to move rather slowly, but pleasantly so in a graphic and gently humorous style. A casual reader of Civil War history will find it an excellent volume, and there is, undoubtedly, material new to even the most erudite student of the conflict. Professional Confederates will enjoy its noticeable slant in favor of the South.

Why the AUSA Meets

LT. GEN. WALTER L. WEIBLE

President, Association of the U. S. Army

WHY do we have Annual Meetings? Why does the Association, its Executive Council, its staff, spend many man-hours and thousands of dollars to prepare a program and complete arrangements for this yearly get-together? Why do the Secretary of the Army, the Chief of Staff, and many other high-ranking civilian and military personnel take the time to attend these functions?

The idea of Annual Meetings of the Association was based on our feeling that at least once each year the Executive Council should meet face to face with as much of the membership as was inter-

ested, and could attend, to account for its stewardship of the Association's affairs.

Since the By-Laws of the Association were written and adopted, the world, the National Defense Establishment, and the Army have moved on. We still meet to give the membership an accounting —but we do more. We meet for additional reasons, probably more important than the original, basic reason.

Our meetings began, in the modern sense, at Fort Benning last year. At that First Annual Meeting, we learned that the Army as an entity, individuals in the Army, and a broad cross-section of industry, commerce, finance, and the press, to name but a few, were intensely interested in the Association, its plans, and accomplishments. It was clearly evident that there was a place for an all-Army Association, that such an Association had work to do, and that the Association of the United States Army was the obvious choice for this job.

The big job is to provide a common meeting ground for those who support the United States Army as an indispensable instrument of national security. When we gather together, at one time and in one place, the assemblage of talent that attends our Annual Meetings, we cannot help but pro-

mote an interchange of ideas that will help the Association to support the Army.

And the Army needs all the support it can get, from the Association and from those whom the Association can enlighten as to the place of the Army in the defense picture. At a period in history when we face the most dangerous enemy of all time, in a situation complicated by shrinking distances and expanding weapons capabilities, we must not be led astray by some "easy way," or quick solution which will prove to be inadequate. The Association meets to help awaken the citizens of the United States to the fact that wars are still won by trained men on the ground, using the best weapons that modern technology can supply, and supported by every other resource, military, political and industrial, that can be brought to bear. There are no easy solutions.

Thus, we meet to discuss these problems of national defense. We meet to get a greater cross-section of knowledge and opinion. We meet to give the ROTC cadet, the company-grade officer, the general, the Department of the Army civilian, the political leader, the industrial leader, and the intelligent and interested citizen the opportunity to get together, at least once each year, to learn that his

concern for his country's welfare is shared by many others.

There are other by-products of an Annual Meeting. The statements made there will be picked up by the Nation's press, and a large cross-section of our citizens will learn that there is an Association dedicated "to contribute its full resources and capabilities to advancing the security of the United States." The press, as a result of this meeting, will inform our citizens of the problems, and the projected solutions to these problems, which our best minds are grappling with each day to insure the safety of our country.

The industrial participation will assist in bringing together those indispensable members of the defense team, the Army and industry. Today we look upon industry as a full partner in the defense effort. The more we know about industry, the more industry knows about the Army, the better we can work together to defeat the common enemy. The exhibits you will see at the Annual Meeting will help the Army understand industry; the presentations the Army makes at the Meeting will help

industry understand the Army.

But above all, we meet to renew our faith in the Army and its missions, and to inform the American people of the fundamental facts and factors pertaining to the national security.

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Report from your AUSA CP

This issue is due to roll from the presses in time for copies to be distributed at the Association's Second Annual Meeting. It's a little late for urging all our members who are able, to attend, but not too late to welcome those who are present, and invite the rest to come to the Third Annual, next year. The program and the arrangements promise to make attendance at this Second Annual most rewarding. We hope you

Formation of chapters and companies is gathering steam. General Weible spoke to several hundred cadets, members of the faculty, and retired and Reserve personnel at Pennsylvania State University as guest of Penn State Company, AUSA, 25 September. This Company is a going concern, with enthusiasm and spirit to spare. Fort Leavenworth was first under the wire with petition for Chapter charter. Activities in all army areas, with concentration in Third, indicate that Association will have a number of Chapters operating by end of year. Four additional ROTC Companies are organizing, with many yet to be accounted for. Regional organization, demanded by membership at First Annual Meeting, is well under way.

Outstanding commanders have developed new method of rewarding outstanding soldiers. Idea is one we should have thought of ourselves. Col. Max E. Drommond, Kobe QM Depot, along with own membership, included enough to pay for membership of Cpl. Chester L. Wentling, Depot's Soldier of the Month. Lt. Col. Clarence E. Lane, Commanding Officer, Headquarters Instructor Group (Provisional), Fort Ord, enclosed purchase order from Central Post Fund for two-year membership for SFC Robert C. McDaniel, as prize in a competitive examination on military subjects. Congratulations to SPC McDaniel and Cpl. Wentling, and thanks to Col. Drommond and Lt. Col. Lane. This is an idea that is worthy of emulation.

Maj. Gen. H. L. Boatner, Chief, JUSMAAG, again appeals for serviceable but obsolete items of uniform for donation to members of the Greek Army. Last year's appeal, according to the General, resulted in a very creditable response. Gen.

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Boatner personally supervised the distribution of the uniforms; he offers to do the same this year to assure that they go to the officers with the greatest need. If you have items of uniform that are at all serviceable, and you can't use them, it's better to send them to Gen. Boatner than to have them turn up in use in the United States, lowering the dignity of the Service. Sam Brownes, O. D. overcoats (both short and long), trench coats, shade 33s, and combat boots are especially usable. Send them to Gen. Boatner personally, at APO 206, N. Y.

Airborne Association, on 1 September, adopted following new objective: "To encourage concerted action among all airborne associations and societies in cooperation with the Association of the United States Army on matters considered appropriate to improve the capability, efficiency, esprit de corps, skills and utilization of the airborne for the greater effectiveness of the Army as a whole." This is a welcome offer of cooperation; is appreciated, and should pave way for action by all concerned to help the Army.

Under ordinary circumstances there is always a unit or two that deserves mention in these pages for their effectiveness in signing up members, but these are not ordinary circumstances. The growing awareness of the place of the Association in Army affairs has brought action from many locations, and the listing below is incomplete, both because of space limitations and the difficulty of extracting information from an overloaded membership department:

- (1) The Armor Center, Fort Knox: 807 new members in one day.
- (2) A new 100% unit almost daily (this means every officer in the unit is a member).
- (3) TA&GM Center, Fort Sill: 386 new members in one mail.
- (4) Lt. Col. William E. McBride, 1st Bn, 23d Infantry: 51 applications (100% for officers, plus an appreciable number of enlisted men, when added to previous memberships).
- (5) Fort Leavenworth: 117 members on their application for Chapter charter, plus new lists weekly.

We're rolling! Let's keep it that way.

It can be done. Although individual Reserve members account for a fair proportion of our membership, Reserve units have lagged behind active Army and National Guard units in signing up their members. Comes now Company M, 314th Infantry, from the Tarentum-New Kensington-Vandegrift area of western Pennsylvania, with 17 new mmeberships, and in the same envelope from Major K. R. Balsley, Senior Unit Advisor, Glassmere, Penna., were ten additional applications from officer reservists. Reservists, too, have a stake in the Army and the Association, but they must be approached.

The New York Port of Embarkation, 1860-1955, is title of well-written and nicely printed booklet received at AUSA headquarters. Fifty-eight pages, plus tipped-in map, well-illustrated, and tables make this a valuable document for logisticians.

Your magazine -- this magazine -- is being quoted and reprinted more than ever, especially in forign military journals. The lead article in THE ROYAL ENGINEERS JOURNAL (England), September issue, was Gen. Sturgis's Construction Power is Combat Power, from our April issue. During the past four months we have had requests to reprint from Mexico, Holland, India, Pakistan, and France. A Medal for Horatius, which appeared in our January, 1955, issue, is still drawing requests for reprints, the latest from England in a magazine devoted to the subject of management.

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